

Purchasing Week

McGraw-Hill's National Newspaper of Purchasing

Vol. 4, No. 13

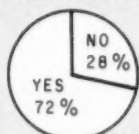
New York, N. Y., March 27, 1961

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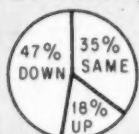
P.A.'s Say 'No' to Future Inventory Scrambles

WHAT P/W'S NEW INVENTORY SURVEY SHOWS

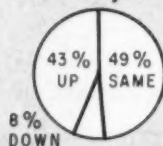
I. Have you finished cutting production material inventories?



II. By June 30, how will your inventory compare with last year?

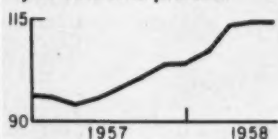


III. What are your buying plans for the next 60 to 90 days?

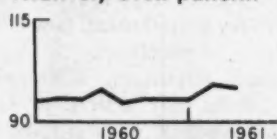


WHY THIS POINTS UP THE INVENTORY REVOLUTION

1. Traditionally the inventory-sales ratio soars during a recession. In '57-'58 you had this picture:



2. But in '60-'61, inventories were pared sharply as sales fell to make this relatively even pattern:



3. And now (as shown in the charts above) no ultra-heavy buying is in prospect, although bullish signs are appearing once more. This probably means that the inventory-sales ratio will remain below post-war norms.

Check of Buyers Shows Caution Ruling in Plans Even as Business Activity Displays Spring Zip

(A Special P/W Survey)

New York—The inventory revolution is here to stay. Any lingering doubts about the lasting power of this sweeping change in purchasing policy are dispelled by PURCHASING WEEK's latest nationwide survey on buying and inventory intentions.

The chart at the left pinpoints highlights of the survey. One thing stands out crystal clear: Barring any national emergency or runaway inflation, purchasing executives are determined to keep a tight rein on inventories in the recovery period ahead. The purchasing executives see no repeat of past inventory buying waves.

Washington Sees Economic Upturn Under Way Soon

Washington — Cautious optimism is replacing the economic gloom that was pronounced by the Kennedy Administration when it took office two months ago. Evidence that the recession has bottomed out (the industrial production index ended a six-month decline last month) is changing the flavor of statements by Pres. Kennedy and his key officials.

The President's chief economic advisor, Dr. Walter W. Heller, now sees a relatively early pickup in the economy but a "relatively slow return to full employment." Signs of an upturn predominate the economic picture, he said last week.

Thus, while the official view now holds that an upturn is in the making, probably in the April-June quarter, it insists there is no evidence that the

(Turn to page 4, column 4)

asks the purchasing vice president of one of the Midwest's largest metal firms. "Today's better inventory controls, more-than-ample supplies, and relatively stable prices have convinced us that a close-to-the-vest policy will work in recovery as well as recession."

Here are some of the survey's key findings:

• **Inventory Policy**—71% of responding P.A.'s report a strong drive over recent months to reduce the ratio of production material inventory to sales (inventory-sales ratio).

And purchasing men aren't very likely to switch from this pattern in the near future. Thus, two out of three P. A.'s say they will maintain current tight policies, even in the unlikely event that prices rise as much as 10% in the near future.

They're just as determined to hold the inventory-sales ratio line in the event of a sharp sales boost. Even if such an increase

(Turn to page 33, column 1)

Results of the Irsome Economic Hokum Sweepstakes

By DEXTER M. KEEZER

In keeping with my persistent purpose to introduce economic light and wisdom in places where it is something of a stranger, I recently wrote to a group of highly accredited economists whom I know, asking, "Please tell me that bit of widely circulated economic hokum which you find irks you most." My idea was that if we could get the hokum more clearly identified and labeled, it would provide more lebensraum for truth and wisdom.

To inspire my correspondents, I provided some samples of the sort of hokum I had in mind. My samples included:

- "It doesn't make any difference how large the national debt is because we owe it to ourselves."
- "The government can't give people anything it hasn't taken away from them."
- "Wage increases that exceed productivity increases get those receiving them nothing because the resulting price increases eat up any gains they make."
- "What's good for General Motors (or the United Automobile Workers or McGraw-Hill) is bound to be good for the nation."

I got a large and lively response to my inquiry. Here are

(Turn to page 14, column 1)

Tiny Semiconductors Prove Big Attraction At Electronics Show

New York — Tiny semiconductors that are doing bigger and better jobs than ever won the spotlight at the annual Institute of Radio Engineers show here.

Exhibitors at the year's biggest display of electronic gear expressed confidence that there would be no letup in the rapid growth of the semiconductor industry. They cited the tremendous increase in the types of transistors and diodes now available to engineers looking for new and better ways to do the job. In 1957, there were only 350 transistors and 1,700 diodes—compared to over 3,000 transistors and 10,000 diodes on the shelf today.

Exhibits at the show emphasized:

- Semiconductors with new

(Turn to page 3, column 1)

Cost, Import Problems Engross N. Y. Seminar

New York — The cost-price squeeze and foreign competition were the hot topics at a day-long seminar of the Purchasing Agents Assn. of New York last week. On hand to answer questions put to them were seven vice presidents of purchasing, traffic, and sales.

This top level "Vice Presidents Discuss Purchasing" professional development session was the first of its type presented by the New York Assn. About 90 P.A.'s attended.

The vice presidents' solutions to the problem of costs and foreign competition: aggressive, planned programs in value analysis

(Turn to page 34, column 1)

Utility Buyers Censured For Emphasis on Price

Chicago—Utility buyers who put excess pressure on suppliers to cut prices may be doing the utility industry more harm than good. This was the warning sounded by a valve producer at the American Power Conference last week.

"If power equipment suppliers are continually pressured on price with little regard for innovation or quality, less money will be available to them to help keep the power industry competitive," said William F. Crawford, president of Edward Valves and Republic Flow Meters Co., both subsidiaries of Rockwell Mfg. Co.

Equipment price, he said, should include operator and maintenance training, standby time during installation of new equipment, servicing, and analyzing field operators' situations to develop better products.

He urged suppliers and users to introduce more realistic accounting of costs which would

(Turn to page 33, column 2)

New Antitrust Target: Copper, Brass Firms

Washington—The copper and brass industry has become the latest target of the Justice Dept.'s widening antitrust and price investigations.

Forty-three federal grand juries are studying antitrust charges covering several industries in virtually every major metropolitan area across the country.

Atty. Gen. Robert F. Kennedy has indicated he expects the government's drive against identical bidding on government contracts to result in significant reductions in industrial prices.

A spot check by PURCHASING WEEK showed that purchasing agents were watching closely for signs of how the government's antitrust actions eventually will affect their own buying activities.

Many P.A.'s shared the feeling that the government attack on price fixing would put more emphasis on cost as the basis of pricing.

"We're going to be looking a

(Turn to page 33, column 1)

P/W PANORAMA

• **Consultant Joseph W. Nicholson** makes his P/W debut in this week's 'Professional Perspective' on page 30. Nicholson discusses the professional qualifications needed by the governmental P.A.

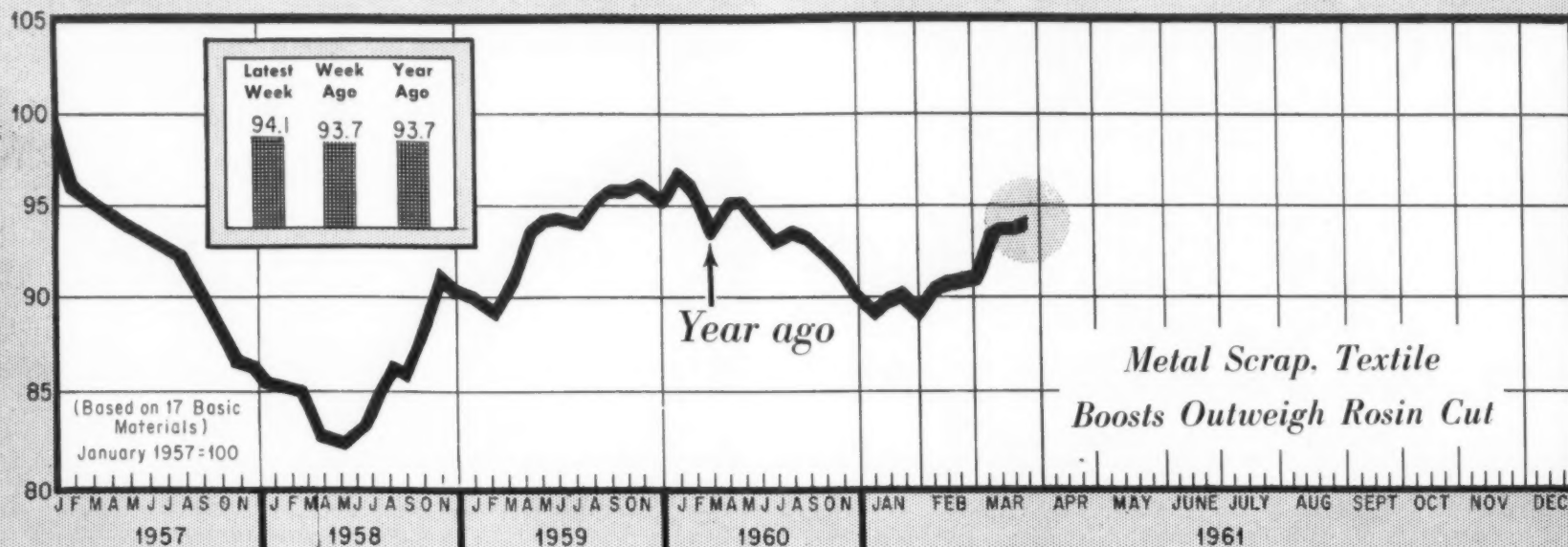
• **How's Your Purchasing I.Q.?** The spread on pages 18 and 19 contains three types of exams given to today's purchasing candidates. See how you'd make out.

• **Command Decision** by the Air force to centralize procurement is meeting with general approval. The story on page 4 outlines the plan. 'Purchasing Perspective' on page 33 tells the initial reaction.

• **Construction Material Prices** seem to be ending their long decline. The story on page 8 takes a look at the situation in this key sector—present and future.

Purchasing Week Industrial Materials Price Barometer

This index, based on 17 basic materials, was especially designed by the McGraw-Hill Department of Economics.



This Week's Commodity Prices

	Mar. 22	Mar. 15	Year Ago	% Yrly Change
METALS				
Pig iron, Bessemer, Pitts., gross ton.....	67.00	67.00	67.00	0
Pig iron, basic, valley, gross ton.....	66.00	66.00	66.00	0
Steel, billets, Pitts., net ton.....	80.00	80.00	80.00	0
Steel, structural shapes, Pitts., cwt.....	5.50	5.50	5.50	0
Steel, structural shapes, Los Angeles, cwt.....	6.20	6.20	6.20	0
Steel, bars, del. Phila., cwt.....	5.98	5.98	5.975	+ .1
Steel, bars, Pitts., cwt.....	5.675	5.675	5.675	0
Steel, plates, Chicago, cwt.....	5.30	5.30	5.30	0
Steel scrap, #1 heavy, del. Pitts., gross ton.....	35.00	35.00	36.00	- 2.8
Steel scrap, #1 heavy, del. Cleve., gross ton.....	34.00	34.50	33.00	+ 3.0
Steel scrap, #1 heavy, del. Chicago, gross ton.....	38.00	36.00	32.00	+18.8
Aluminum, pig, lb.....	.26	.26	.26	0
Secondary aluminum, #380 lb.....	.226	.227	.25	- 9.6
Copper, electrolytic, wire bars, refinery, lb.....	.286	.286	.326	-12.3
Copper scrap, #2, smelters price, lb.....	.238	.235	.238	0
Lead, common, N.Y., lb.....	.11	.11	.12	- 8.3
Nickel, electrolytic, producers, lb.....	.74	.74	.74	0
Tin, Straits, N.Y., lb.....	1.039	1.040	.998	+ 4.1
Zinc, Prime West, East St. Louis, lb.....	.115	.115	.13	-11.5
FUELS†				
Fuel oil #6 or Bunker C, Gulf, bbl.....	2.30	2.30	2.00	+15.0
Fuel oil #6 or Bunker C, N.Y., barge, bbl.....	2.62	2.62	2.37	+10.5
Heavy fuel, PS 400, Los Angeles, rack, bbl.....	2.10	2.10	2.15	- 2.3
Lp-Gas, Propane, Okla., tank cars, gal. (net price)....	.045	.045	.045	0
Gasoline, 92 oct. reg., Chicago, tank car, gal.....	.12	.124	.111	+ 8.1
Gasoline, 84 oct. reg., Los Angeles, rack, gal.....	.103	.105	.11	- 6.4
Kerosene, Gulf, Cargoes, gal.....	.099	.103	.09	+10.0
Heating oil #2, Chicago, bulk, gal.....	.098	.10	.088	+11.4
CHEMICALS				
Ammonia, anhydros, refrigeration, tanks, ton.....	94.50	94.50	90.50	+ 4.4
Benzene, petroleum, tanks, Houston, gal.....	.34	.34	.34	0
Caustic soda, 76% solid, drums, carlots, cwt.....	4.80	4.80	4.80	0
Coconut oil, inedible, crude, tanks, N.Y. lb.....	.133	.133	.183	-27.3
Glycerine, synthetic, tanks, lb.....	.273	.273	.293	- 6.8
Linseed oil, raw, in drums, carlots, lb.....	.167	.167	.171	- 2.3
Phthalic anhydride, tanks, lb.....	.195	.195	.165	+18.2
Polyethylene resin, high pressure molding, carlots, lb..	.275	.275	.325	-15.4
Rosin, W.G. grade, carlots, fob N.Y. cwt.....	16.50	17.00	13.70	+20.4
Shellac, T.N., N.Y. lb.....	.31	.31	.31	0
Soda ash, 58%, light, carlots, cwt.....	1.55	1.55	1.55	0
Sulfur, crude, bulk, long ton.....	23.50	23.50	23.50	0
Sulfuric acid, 66° commercial, tanks, ton.....	22.35	22.35	22.35	0
Tallow, inedible, fancy, tank cars, N.Y. lb.....	.074	.071	.061	+21.3
Titanium dioxide, anatase, reg. carlots, lb.....	.255	.255	.255	0
PAPER				
Book paper, A grade, Eng. finish, Untrimmed, carlots, cwt.....	17.75	17.75	17.20	+ 3.2
Bond paper, #1 sulfite, water marked, 20 lb, 16-carton lots, cwt.....	25.20	25.20	25.20	0
Chipboard, del. N.Y., carlots, ton.....	100.00	100.00	100.00	0
Wrapping paper, std. Kraft, basis wt. 50 lb rolls.....	9.50	9.50	9.25	+ 2.7
Gummed sealing tape, #2, 60 lb basis, 600 ft. bundle..	6.60	6.60	6.30	+ 4.8
Old corrugated boxes, dealers, Chicago, ton.....	14.00	14.00	18.00	-22.2
BUILDING MATERIALS‡				
Cement, Portland, bulk carlots, fob New Orleans, bbl..	3.65	3.65	3.65	0
Cement, Portland, bulk carlots, fob N.Y., bbl.....	4.20	4.20	4.18	+ .5
Southern pine, 2x4, s4s, trucklots, fob N.Y., mftbm...	116.00	116.00	124.00	- 6.5
Douglas fir, 2x4, s4s, carlots, fob Chicago, mftbm...	124.00	123.00	137.00	- 9.5
Spruce, 2x4, s4s, carlots, fob Toronto, mftbm.....	80.00	80.00	89.00	-10.1
Fir plywood, 1/4" AD, 4x8, dealer, crid, fob mill, msf..	64.00	60.00	64.00	0
TEXTILES				
Burlap, 10 oz. 40", N.Y., yd.....	.160	.160	.106	+50.9
Cotton middling, 1", N.Y., lb.....	.334	.333	.341	- 2.1
Printcloth, 39", 80x80, N.Y., spot, yd.....	.175	.175	.206	-15.0
Rayon twill, 40 1/2", 92x62, N.Y., yd.....	.20	.20	.235	-14.9
Wool tops, N.Y., lb.....	1.505	1.485	1.475	+ 2.0
HIDES AND RUBBER				
Hides, cow, light native, packers, Chicago, lb.....	.190	.185	.205	- 7.3
Rubber, #1 std ribbed smoked sheets, N.Y., lb.....	.310	.305	.408	-24.0

† Source: Petroleum Week ‡ Source: Engineering News-Record

This Week's

Price Perspective

MARCH 27-APRIL 2

INVENTORY REPERCUSSIONS—P.A. decision to stay with tight inventories in the recovery period ahead (see P/W survey, p. 1) has some important price and business implications.

First, and most important, it lessens the danger of inflation. For buyer restraint means only a slow gradual pickup in demand. Couple that with the still sizable supply gluts in most lines and it's hard to see any sharp price spurt anywhere.

This is even true for sensitive commodity prices, which traditionally zoom up when business starts to improve.

One top corporation economist, already has gone out on a limb and told Purchasing and Management to expect less than a 5% rise in these volatile prices from now to the end of the year.

That's in sharp contrast to previous recovery experience. These tags soared by more than 14% in the 12-month period following the bottoming out of the 1957-58 recession.

DIMINISHED FEAR OF INFLATION may also have important consequences for government antirecession action.

According to some Washington officials, the Administration has been holding back on new spending programs for fear that it might set off a new heavy industrial buying wave.

Feeling was that such a surge would raise domestic prices—thereby sparking a new wave of imports into the U. S. This, in turn, would tend to create domestic unemployment, perhaps even more than the government aid programs originally eliminated.

Evidence, such as that presented by the new P/W survey, is helping to push such fears into the background and to build up sentiment for such programs as extended unemployment payments and aid to depressed areas.

Some experts point out that buyer caution actually increases the need for such spending programs. They argue that, in the absence of a heavy buying surge, only the added fillip of government money can pull us back to prosperity levels.

LONGER TERM BUSINESS IMPLICATIONS of the new buying policy may also prove significant.

For tighter controls—if they persist—would tend to dampen the ups and downs of the business cycle.

A good part of the drop-off in business activity during each of the last three recessions, for example, can be traced back to a wide swing in inventory policy—from excessive accumulation to sharp paring.

Take 1957-58. At that time businessmen slashed a huge \$7-billion off their shelves. Eliminate this negative factor and the seeming severity of recession fades away to modest proportions.

This has prompted some business analysts to contend that the elimination of the inventory cycle—along with today's built-in government stabilizers—could provide the antidote to a "boom and bust" economy.

DISTRIBUTORS GET INTO THE ACT—There's growing evidence, Says one of MH's top economists, "The stock-sales ratio for wholesale and retailers are also participating in the new inventory revolution.

Says one of MH's top economists, "The stock sales ratio for wholesale and retail establishments has been dropping fairly steadily in recent years. From 1.32 in 1957 it slipped to 1.25 in 1960."

This expert contends that the crackdown on unneeded stocks "may partially account for the lassitude of the 1959-60 business recovery."

Tiny Semiconductors Prove Big Hit at IRE Show

(Continued from page 1)
properties heading for new jobs.

- New ways of making transistors.

- Pinhead - size components ready for market.

- Off-the-shelf thermoelectric generators.

New types of transistors—at lower prices—are opening up a host of new applications. Texas Instruments, for example has just unveiled a completely new line of solid-state controls and testing equipment. Transistors are just starting to dent the TV market, while all computer-makers have now transistorized their units. Solid-state controls for home light dimming and electric range control are off the drawing boards.

Transistor makers talked in terms of milliamps and small voltages only a few years ago. RCA is now testing a 10 amp, 300 v. power transistor. Texas Instruments is demonstrating switching speeds of 25 megacycles—and other manufacturers are working on similar properties.

One of the most exciting developments in recent years is the epitaxial technique, which gives silicon transistors lower saturation resistance and higher current

tronic circuits designed for specific jobs (Westinghouse is offering five, has 15 in design), while other makers have miniaturized standard resistors, capacitors, etc. (Hughes has transistors the size of a pinhead).

Initial micro-elements are going towards military applications. But certain units, such as an RCA micro-tantalum capacitor, are already said to be competitively priced. Computers are expected to provide first nonmilitary market, and designs are already under evaluation. Other

possible uses include hearing aids and electric wrist watches.

"We're doing 20 times the business in thermo-electric devices that we did six months ago, and we expect the field to take off soon," a Westinghouse engineer said, as he pointed to the exhibit of a model train run by a thermoelectric generator. Electronic experts expect real growth in use of devices that convert heat to electricity. Several companies are offering off-the-shelf hardware for the first time and costs are being brought down.



ALL ABOARD FOR THE SPACE AGE: Westinghouse exhibit at IRE Show included 40-w. thermoelectric generator which powered 'HO' train.



CONTOUR CABLES: Hughes Aircraft exhibited these flat metal strips embedded in plastic. Design will save space in missiles.

capability without sacrificing breakdown voltage. A layer of extremely pure, high - resistance silicon is grown onto a low-resistance layer that minimizes collection resistance. Most transistor makers are producing units on a limited basis. Lack of the epitaxial compound is said to be restricting production. However, one industry observer predicted that all manufacturers would be making them "within a year."

Researchers have also found that gallium arsenide may make a better transistor than the germanium and silicon now used. Prototype gallium arsenide units under test operated at higher temperatures (up to 400C) and gave faster switching response than conventional transistors.

Silicon controlled rectifiers are winning a host of new jobs because they're relatively trouble-free. New high-powerer units are being used for motor control, welding power, and industrial controls, but power switching is expected to open up a big new field. Westinghouse is planning a 3rd quarter price cut on certain high power units.

Half-a-dozen manufacturers are now offering, as stock items, components that are only a fraction the size of conventional circuit elements. Some companies have developed complete microelec-



twins-
born
25 years
apart !

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Washington Perspective

MARCH 27-
APRIL 2

Success or failure of Pres. Kennedy's labor-management committee could be determined by the auto negotiations this summer. The 21-member committee includes Walter Reuther, president of the United Auto Workers, and Henry Ford II, board chairman of the Ford Motor Co., who will be bargaining table opponents when the auto industry labor negotiations open in July.

This exemplifies a major pitfall facing the President's committee. Kennedy wants it to "give direction" to wage and price movements without interfering in specific bargaining negotiations. How the group can draw the line between discussion of wages and prices and specific disputes is unclear at this time.

Reuther and Ford may point the way, however. If they can divorce themselves from any bitterness that might arise during the auto talks and continue a friendly exchange of views in committee sessions, Kennedy's approach may have some value.

Another pitfall is inherent in the statement by Labor Secy. Arthur J. Goldberg that the committee will exchange views of general problems. Again, many in Washington believe the discussions could become too general.

At one stage or another, the committee discussions will have to get specific. It is at this point, observers believe, that the committee must work hardest to avoid a bitter controversy between labor and management representatives, with the public delegates in the middle.

Pres. James B. Carey's hold on the International Union of Electrical Workers may be loosening. For one reason or another, Carey supporters have lost recent elections at Louisville, Lynn, and Pittsfield. The first was a particularly hard blow because it had been considered a Carey stronghold.

So far, Carey has retained control of international headquarters despite a feud with Secretary-Treasurer Al Hartnett. At least one union source believes this battle may lead eventually to both men losing out to a third IUE executive.

The split personality of the electronics industry rose to the surface at the recent spring conference of the Electronic Industries Assn. (EIA). It set up plans for a buy-American educational program aimed at labor and the public, and called for voluntary quotas to restrict imports.

The industry has been growing increasingly restive about the rising rate of imports of electronic parts, semiconductors and consumer goods from such low-wage countries as Japan. But the U.S. still exports three times as much electronic goods as it imports. The association action was a cautious, compromise approach to the problem.

Some electronics industry leaders are upset by a recommendation calling for stricter reliability tests in military contracts. They contend the specifications, proposed by a military-industry advisory committee, would increase costs considerably to electronics producers.

Paul S. Darnell of Bell Telephone Labs, who headed the advisory group, concedes the recommendations would increase costs. But he says the rise "may be offset by increased yield and greater reliability of equipment." But Leon Podolsky of Sprague Electric Co. and chairman of EIA's component parts panel argues that the proposal would "affect everyone who sells electronics to the government" and might "determine whether you will have any government business."

Weekly Production Records

	Latest Week	Week Ago	Year Ago
Steel ingot, thous tons	1,574	1,573	2,607
Autos, units	77,820	98,034*	154,241
Trucks, units	22,922	23,486*	29,334
Crude runs, thous bbl, daily aver	8,043	8,264	7,857
Distillate fuel oil, thous bbl	13,014	12,885	12,874
Residual fuel oil, thous bbl	6,446	6,060	7,025
Gasoline, thous bbl	27,932	28,534	27,712
Petroleum refineries operating rate, %	81.1	83.3	80.5
Container board, tons	166,100	154,396	166,051
Boxboard, tons	99,725	98,859	97,497
Paper operating rate, %	92.4	90.8*	97.6
Lumber, thous of board ft	200,435	196,044	250,088
Bituminous coal, daily aver thous tons	1,017	1,048*	1,342
Electric power, million kilowatt hours	14,295	14,353	14,109
Eng const awards, mil \$ Eng News-Rec	353.9	382.4	453.5

*Revised

AF Creates New Agency to Centralize All Buying

Washington—In a sweeping overhaul of its procurement setup, the Air Force has created a new agency—the Air Force Systems Command—that will take over all contracting responsibilities from both the Air Materiel Command and the Air Research and Development Command.

Under the new setup, both prime and subcontractors will deal with only one procurement agency, regardless of the status of their projects.

The move is aimed at giving the Air Force stronger central control over the more than \$10-billion it spends annually on weapons systems and other major projects.

Buying Was Divided

Until now, AF procurement function was divided between ARDC and AMC—with the former responsible for initiating projects and awarding and managing contracts in the developmental stage. When quantity production was authorized, AMC took over the responsibility of contracting.

This division of responsibility had been severely criticized by Congress, industry, and even by the Pentagon itself. According to the critics, the old arrangement resulted in confused lines of authority, delays in pushing key projects into operation, and other administrative bottlenecks.

The new Systems Command will be built up primarily around the ARDC. Its headquarters will be at Andrews Air Force Base, Md., and its commander will be Lt. Gen. Bernard A. Schriever, former ARDC head. The agency will assume control over at least \$7-billion worth of contracting in fiscal 1962, making it the largest military procurement agency.

New Logistics Command

In place of AMC, a new Air Force Logistics Command is being set up at Dayton, Ohio, under Gen. Samuel E. Anderson, former AMC commander. The new organization will handle such supply management tasks as distribution, warehousing, and procurement for everything the Air Force buys that's not tied to specific weapon systems. This would mean common-use items—electronic tubes, for example—and replacement and spare parts. If the Systems Command should designate spare and replacement parts as part of the weapon system, observers say a likely arrangement might be for the Systems Command to order the first increment of spares and replacement parts with the original weapon system procurement contract, then for the Logistic Command (AMC) to contract for additional lots of the parts.

The Air Force says contractors who are bidders should continue to deal with the offices with which they have been dealing—unless and until they are advised of changes as the reorganization gets down to detail. Target date for completion of the organizational changes is July 1.

Little Relocation Seen

The changes are expected to involve a minimum relocation of personnel and facilities. Most offices and people will be kept where they are, but instead of being called ARDC or AMC

units, they will now be USAF Systems Command, or to a lesser extent, Logistics Command organizations. For instance:

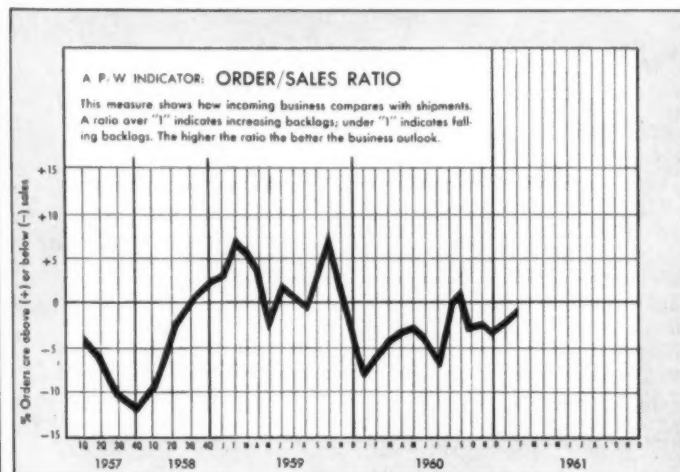
The Wright Air Development Division of ARDC and the Aeronautical Systems Center of AMC, now both at Wright-Patterson Air Force Base, Dayton, will be combined under the name of Aeronautical Systems Div. of the Systems Command, remaining in the same location.

Similarly, ARDC's Command & Control Development Div. and AMC's Electronics Systems Center, both at Hanscom Field near Boston, will be combined into the new Systems Command's Electronics Systems Div.

The reorganization involves two other changes:

• Contracting for basic and applied research, now handled by ARDC, will be assigned to a new office of Aerospace Research, reporting directly to the Air Force Chief of Staff.

• The Army Corps of Engineers ballistic missile construction office in Los Angeles will be placed under the new Air Force Systems Command's Ballistic Systems Div. This will mean that for the first time all aspects of the ICBM program—including base construction contracting—will be placed under control of a consolidated military agency.



HARD GOODS ORDERS nearly equalled sales in February, almost halting the long decline in backlogs. New defense contracts were largely responsible for the improvement recorded in the order/sales ratio.

Washington Sees Upturn in the Making

(Continued from page 1)
turnaround necessarily will take on boom proportions.

Administration experts say:

The national economy never really pulled completely out of the 1957-58 recession and the current recession therefore started from a lower pace.

• Unless the Kennedy program of economic stimulants is enacted, the recovery is likely to be sluggish.

• Hard-core "structural" unemployment in certain industries hit by automation, unemployment in depressed areas, and foreign competition are problems that must be dealt with on their own.

Signs of an upturn began to appear even before the first of Kennedy's antirecession measures—extension of unemployment compensation—has been passed.

Heller, chairman of the Council of Economic Advisors, stresses that an upturn this year would be "only the beginning, not the end," of U.S. economic problems. He said the United States is still a long way from closing the gap between what it actually produces and what it ought to produce to make full economic use of existing capabilities and to bring unemployment down to an acceptable 4%.

Thus Kennedy is beginning to plug for his program less as a package of antirecession remedies and more as a basis for long-term economic growth and for the national strength needed in physical goods, education, talent, and health to carry out U.S. responsibilities in the world.

Administration officials argued

that stepped-up contracting by government agencies, plus the promise of more vigorous government spending programs, contributed to halting the decline. And economists, looking for hopeful signs while continuing to warn of soft spots, cite these indicators as significant:

• Retail sales—February sales, while still 1.5% below 1960, rose 1% above January, due mainly to better volume in soft-goods although the end of the month also brought a pickup in auto buying.

• Installment debt—Consumers are getting out of debt. Installment buying debt declined a half-billion dollars in January, the biggest reduction for any recent month.

• Personal income—While this figure was down from January, it still remained 2.5% above February, 1960.

• New orders—Increased placement of government contracts speeded up the receipt of new orders by manufacturers (2% higher in February than January) and the shipment of durable goods (up 1%).

• Heavy construction—This has been one of the most cheerful notes in the current picture. In the first 10 weeks of 1961 construction awards jumped 10% over the same period a year ago in spite of a \$106-million drop in private housing contracts.

Government economists say that businessmen have been holding the line too tight on plant and equipment spending and are beginning to loosen up. They forecast a pickup from \$16.5-billion in spending plans for the first half of the year to \$18-billion for the second half.

IATA to Make New Try at Averting North Atlantic Air Cargo Rate War

New York—The International Air Transport Assn. plans to call North Atlantic carriers together again in hopes of coming up with a rate schedule before an "open rate" situation develops on April 10.

'Rate Break' Principle

The common rate filed by the three U. S. flag carriers—TWA, Pan American, and Seaboard & Western—calls for rate reductions on a "weight break" principle. Two new break points were created on shipments under 500 kilos (1,100 lb.) and two break points were created for shipments over that limit. Here's how it breaks down on a New York-London shipment:

0.45 kilos (100 lb.),	\$1.90 per kilo
45-100 kilos,	\$1.52
100-250 kilos,	1.14
250-500 kilos,	1.10
500-1,000 kilos,	1.03
1,000-7,500 kilos,	.76
7,500- and over,	.68

Thus, a 100-lb. shipment between New York and London would cost \$68.40, a 28% reduction over the current charge of \$94.95. A 16,500-lb. (or 7,500 kilo) shipment would get a 62% reduction. The rates are subject to approval of the CAB and of governments to which the rates apply.

Two Opposing Views

Most foreign flag carriers want to cut rates on old commodity classifications, which the U. S. carriers say will not encourage more business but merely cut revenue on current products. The foreign carriers may be hard to budge from this position. BOAC, for example, wants to cut rates on textiles, shoes, books, china and glassware, chemicals, drugs, and medicines, auto-

mobiles, farm machinery and parts.

U. S. carriers agree only on a few of these classifications, feeling that most other items would be automatically reduced under a weight break system. U. S. carriers propose cuts on only a few specific commodities such as automobiles, farm machinery and parts, unmounted jewelry, leather goods, yarns and fibers, clothing and footwear, television sets, dental instruments.

Crane to Hold Prices Firm for 6-Month Period

Chicago — Crane Co. has adopted a new policy which will guarantee prices on its industrial valve line for six months at a time.

New Price Schedule

The company is testing the policy with a new schedule of prices that will stay in effect until June 30. At that time, it will review prices and issue another list which the company says will be in effect July 1 through Dec. 31.

The price schedule in effect

until June shows some upward "adjustments" in bronze and iron valves.

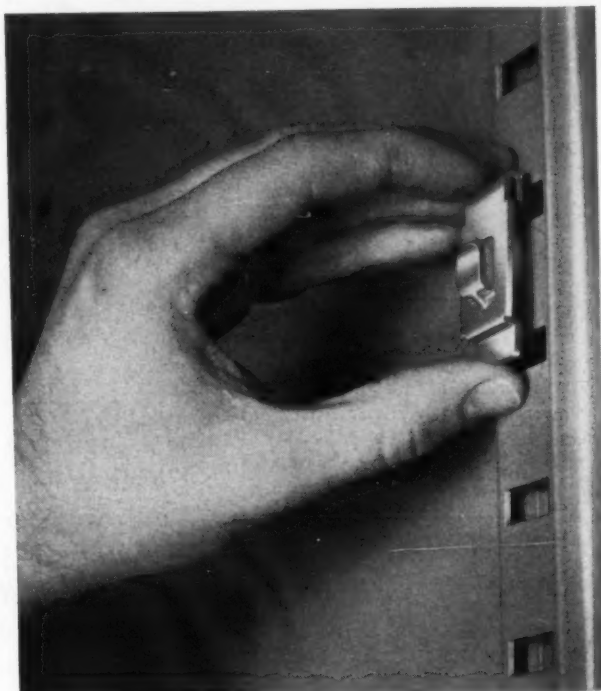
Crane said the new policy is designed to help customers, particularly large contractors, who have objected to spot price changes in the valve industry which make firm bids on large contracts hazardous.

In other moves last week, Crane also:

- Introduced a new line of ball valves. Principal feature is a tapered cartridge containing the

entire ball and seat assembly which can be removed for servicing while the valves remain in line. Prices range from \$9.40 to \$106.20.

- Widened its new Valve Servicing and Repair Div., opening the second of four repair shops which it is spotting across the country. Last month it opened the first of these plants in Chicago. Latest is in Ambridge, Pa. Houston is slated for March; Los Angeles will get a repair shop in April.



One-piece shelf clip can be installed without tools. Clips can be inserted and removed quickly... fit flat against the posts for maximum useable storage area.



Clip-type shelves move in and out without tilting. Shelves are adjustable on 1½" centers. Corners are lapped and spot welded for extra shelf strength.

DuPont Cuts Bulk Price Of DMAC Fiber Solvent In Attempt to Boost Sales

Wilmington, Del.—Du Pont Co. slashed the bulk price of dimethylacetamide (DMAC) to 50¢/lb. to boost the use of the synthetic fiber solvent.

The 22½¢/lb. reduction was made possible by the opening of a new plant at Du Pont's Belle, W. Va., complex for production of methylamines, of which (DMAC) is one of the derivatives. The plant more than doubled Du Pont's capacity to produce methylamines, previously made only at the company's Houston, Tex., plant.

Prices Going Down

Methylamine prices have been going down steadily as new markets have opened up for its derivatives, especially in the rocket propellant field. Current price of dimethylamine (DMA), which makes up the largest portion of the methylamine market, is 28¢/lb., down from 85¢ in 1945.

DMA's primary use is in the manufacture of (DMAC) as well as another synthetic fiber solvent, dimethylformamide. DMAC is used as a chemical reactant and catalyst, solvent for plastics, resins and gums, and as a paint remover.

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U.S. Steel Units Realign Casing, Tinplate Prices

Pittsburgh—U. S. Steel's National Tube Div. raised prices on some grades of oil well casings last week. At the same time, two U. S. Steel mills lowered tinplate tags.

The mark-up on casings amounted to about 1%. It affected all grades of 4½ in., 5 in., and 5½ in. diameter casings. Prices on larger diameter oil well casings remained unchanged.

Price Cut

The tinplate price was cut 10¢/base box at the Morrisville, Pa., plant and at the Fairfield, Ala., mill of the company's Tennessee Coal & Iron Div. The reduction brought prices at these mills into line with those of other U. S. Steel production centers, where the base price of tinplate weighing 100 lb. to the base box has been \$9.10.

N&W Bids for Nickel Plate Merger; Acquisition of Other Rail Properties

Washington—The battle for rail supremacy in the East grows more intense.

Pledging improved service to shippers and more balanced operations, the Norfolk & Western Railroad has formally asked the Interstate Commerce Commission for approval to merge with the New York, Chicago and St. Louis (Nickel Plate) Railroad; to lease and later acquire the Wabash, and to buy the 111-mile Sandusky line from the Pennsylvania Railroad for \$27-million.

The combination would result in a 7,400-mile rail system stretching from Norfolk, Va., westward as far as Kansas City and Omaha and having revenues of about \$500-million annually based on last year's intake.

The N&W - Wabash - Nickel

Plate consolidation would lead eventually, in the view of many observers, to a tieup with the Pennsylvania to form the biggest rail combine yet from a revenue standpoint.

The Pennsylvania already has substantial holdings in both the N&W and Wabash, amounting to about 40% and 87%, respectively, of their voting stock. In addition, it turned the key that made the merger possible by agreeing to sell the Sandusky line, thus providing a necessary link between the N&W and Nickel Plate. This line runs between Columbus and Sandusky, Ohio.

Pushing for Lehigh Valley

The Pennsylvania, as another move in its apparent grand design, is seeking ICC approval to acquire the remaining 56% of stock in the Lehigh Valley Railroad which it does not now own.

The New York Central last week asked permission to intervene in opposition to this application, asserting that it would suffer "grievous injury" if the application were approved. The Central's lines parallel those of the Pennsylvania and Lehigh to a substantial extent.

Lead-Zinc Study Group Presses for Agreement On International Prices

Mexico City—The third International Lead-Zinc Study Group opened sessions here last week with delegates pushing vigorously for some kind of international agreement that would lead to firmer prices.

Some countries such as Canada and Australia were reported near the boiling point because "gentlemen's agreements" reached at the last meeting in Geneva for participating countries to restrict production voluntarily had not been adhered to by some nations.

Some disgruntled nations even threatened to "dump" if some sort of workable proposal did not result from the meetings. Two solid plans were presented:

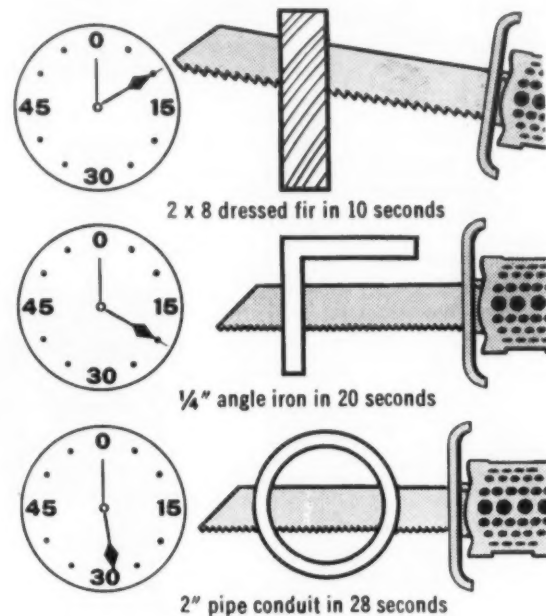
- U. S. proposed to barter its excess agricultural commodities for minerals in countries with excess stocks. This was regarded primarily as a "stopgap" measure which could be instituted immediately while more concrete steps were studied.

- Export limitations by individual governments is another plan which delegates felt could be put into action fast. Mexico and Peru supported this plan.

The Mexican delegate said production cuts would be hard to implement and perhaps would take up to three years to become effective.

Meanwhile, Study Group President Carrillo Flores warned lead producers that increasing substitution of plastic for lead, particularly in cable coverings, made it "urgent" to find new uses for this metal. He said that as a result, Canada would cut lead production of this year and Mexico would follow suit. Zinc, showing increased consumption, had not been damaged by substitutes, he said.

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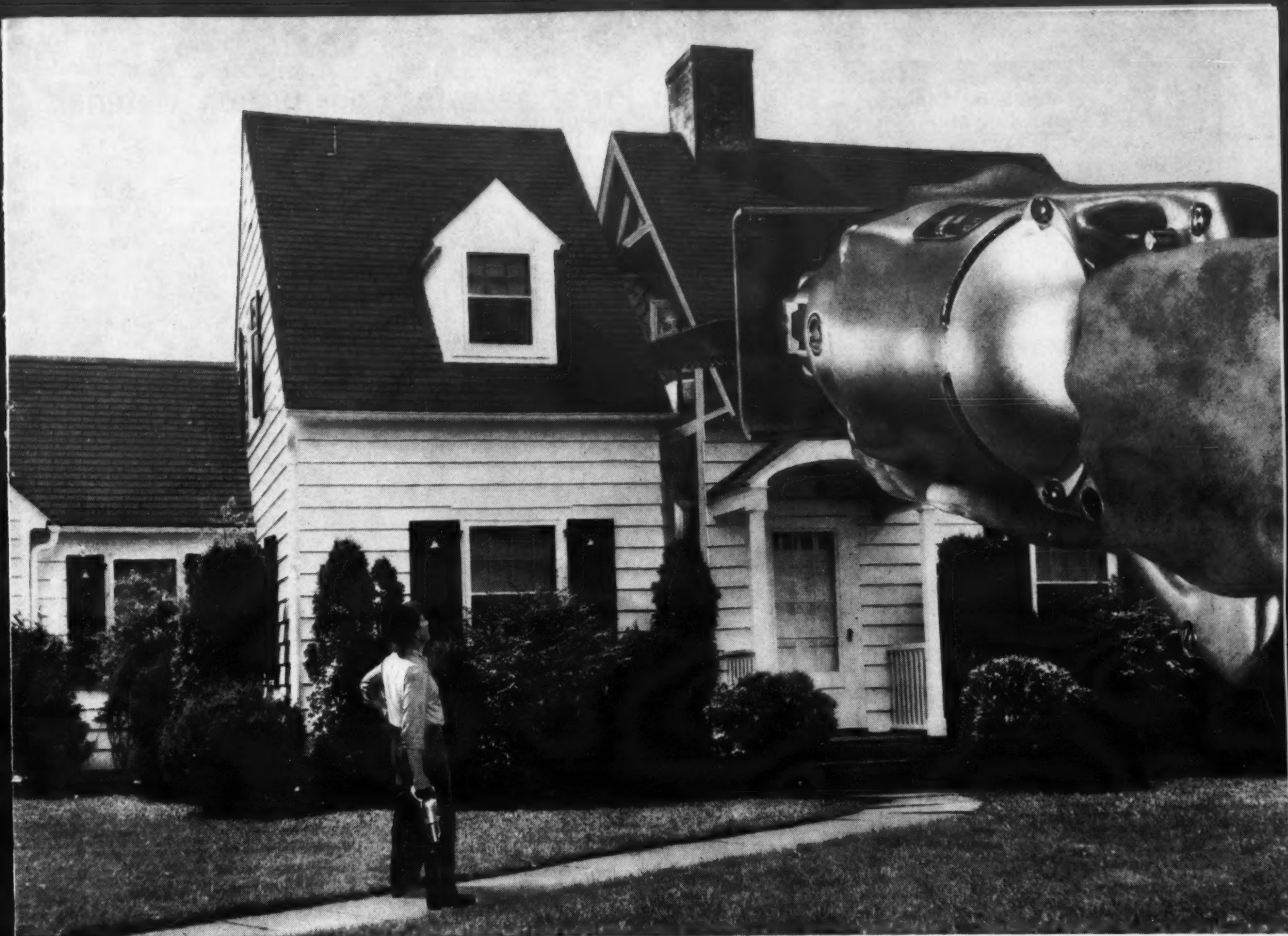
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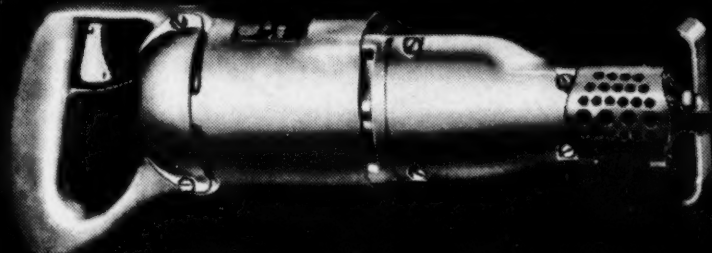
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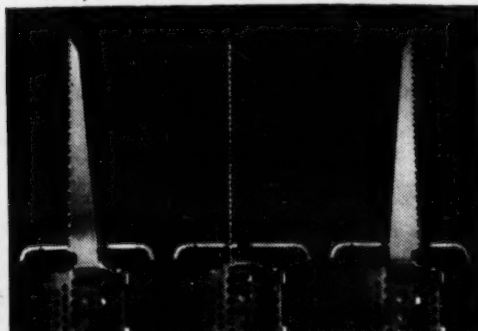
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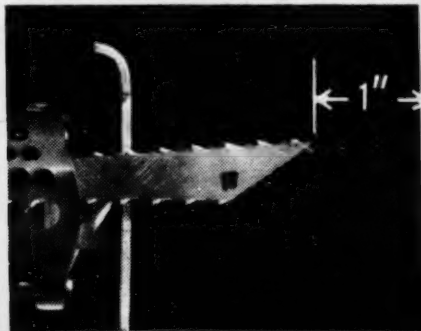
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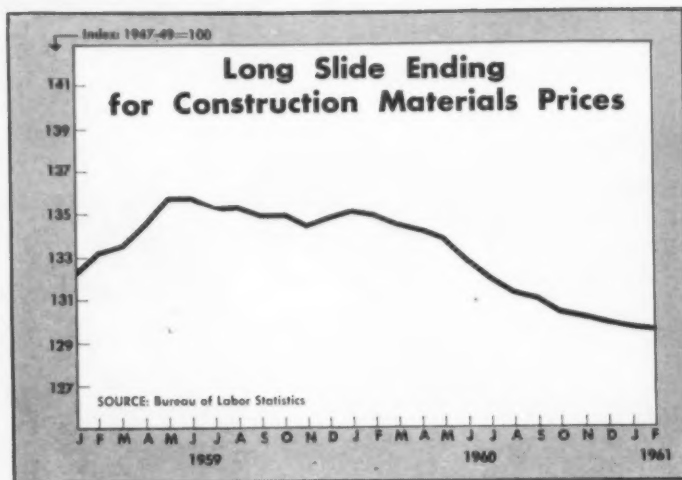


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Purchasing Week

March 27, 1961

Higher Prices Seen for Construction Materials

New York—Prices for a number of construction materials appear to be firming after a long downward drift (see chart) that brought them to their lowest level since July, 1958.

Signs of an upward trend are becoming apparent in these key materials:

• **Structural steel:** Demand has been picking up rapidly. January bookings were 22% above December, and the surge is reported to be continuing steadily. Distributors indicate that upward revision of prices is likely

where local markets permit. On quantity discounts applied to combinations of small orders, small quantity extra charges for individual items are now being included in some areas. And industry analysts are predicting a price increase for structurals this year—despite competition and excess capacity—for the first time in three years.

• **Lumber:** Prices of a number of products are starting to firm after an over-all 9% recession decline. The past two weeks saw mill tags rise for various

plywood grades—by \$7/thousand square feet (msf) for CD grade, 5/8" interior sheathing, and \$3/msf for CD 3/4" and BB grade, 3/4" exterior plyform. And green fir 2x4's also went up \$2 to \$3/thousand board feet in the same period.

• **Cement:** Producers anticipate a 5% to 7% increase in shipment for 1961 over 1960. Many report heavier backlog orders compared to last year, and the industry expects improved weather to bring a sharp spurt in shipments. In addition, such considerations as industry wage hikes starting in May—unions are preparing demands for a 16¢/hr. boost—and increased delivery costs signal possible scattered price increases in the near future and the end of price wars which have been cutting tags in some local markets.

Other bullish signs include recent price increases and stepped-up demand for construction machinery as well as for asphalt roofing, wall plaster, and gypsum board. A pickup in aluminum sales—40% of which go to construction—indicates price firming may come in this material also.

Growing demand trends also add to the prospect of price strength in construction materials. Housing starts are turning up and construction contracts awarded are running 13% ahead of last year.

Much of the general optimism among construction materials producers stems from the Kennedy Administration proposals for stimulating housing demand and expanding highway construction.

The housing proposals emphasize low cost financing of homes, including lower mortgage interest rates and a no-down payment, 40-year, FHA-insured mortgage plan for medium-priced homes. The Administration is also asking for stepped-up construction of public housing for low income groups.

The government's expanded highway construction plan, if adopted, would increase the current program's cement and steel usage by approximately 25%.

Akron Association to Hold Annual Conference April 1

Akron—Problems and opportunities of the 1960s will be explored at the 6th Annual Purchasing Conference of the Purchasing Agents Assn. of Akron, April 1.

Presented in cooperation with the College of Business Administration, University of Akron, the one-day program will cover economic matters and personal relationships, with the final session devoted to nuclear power and foreign competition.

P.A.'s will hear A. J. Ashe, director of business research and economist, B. F. Goodrich Co., speak on the "Economic Outlook"; Dr. Frank Simonetti, head of the industrial management department of the university; Clifford Watson, assistant director of procurement, National Lead Co. of Ohio; Harold C. Johnson, vice president, Cooper Bessemer Corp.; and Rear Admiral F. Gordon Selby, (ret.), Goodyear Aircraft Corp.



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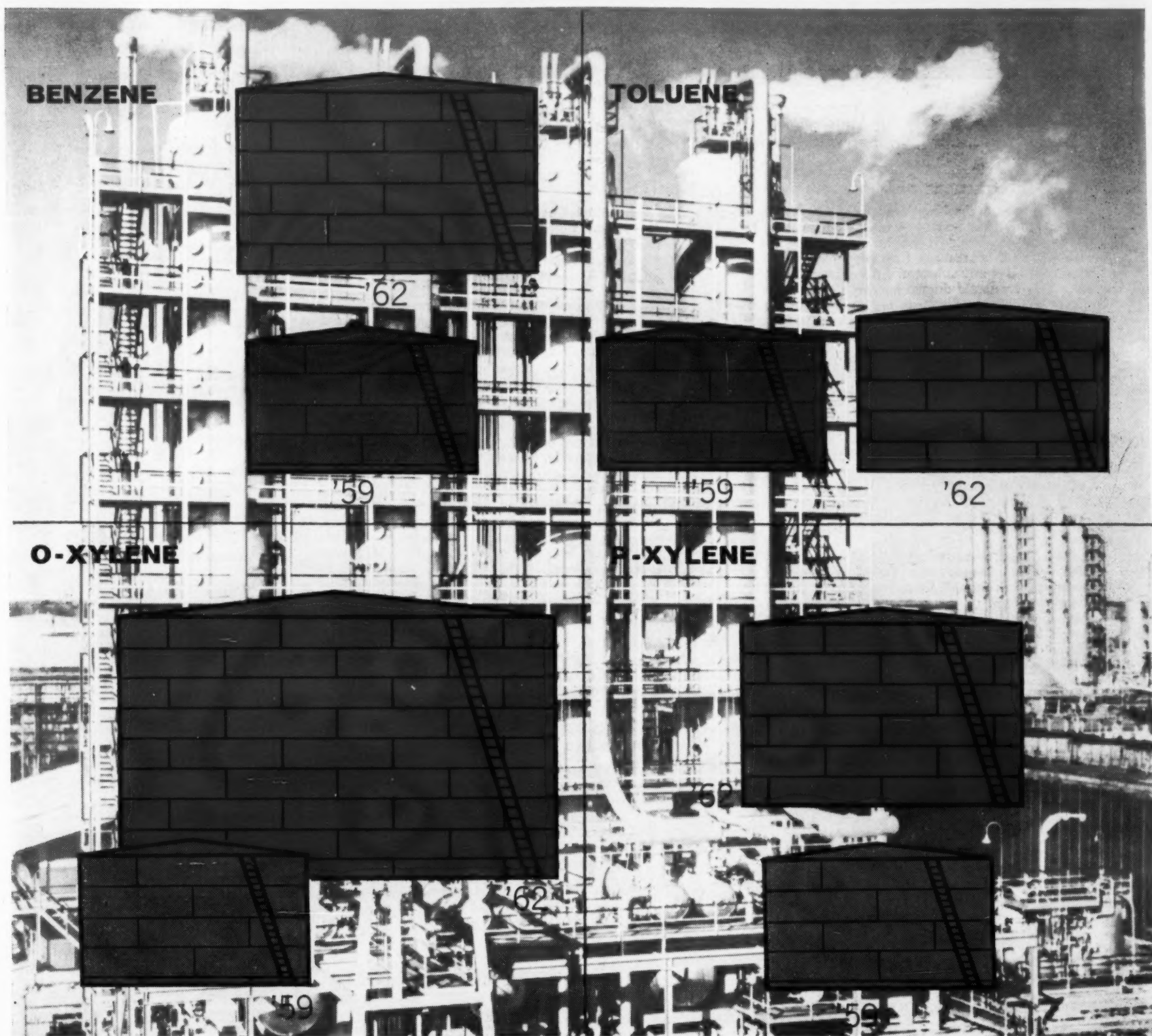
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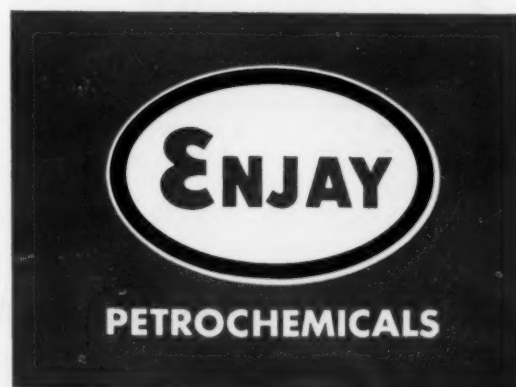
	CAPACITY	
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TOLUENE million gal/yr	32	55
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PARAXYLENE million lb/yr	65	105

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P/W MANAGEMENT MEMOS

A collection of timely tips, quotations, and inside slants on management and industrial developments, along with a run-down of events and trends of use to the purchasing agent.

Economic Consequences of Disarmament

It's long been a cherished article of faith among Marxian economists that the United States cannot prosper without vast government expenditures on armaments and that mass unemployment would follow hard upon any substantial disarmament program. This economic dogma has been used effectively by Soviet propagandists to "explain" to the uncommitted nation's the West's stubborn refusal to swallow whole the Communists' sweeping disarmament proposals.

But it may be that at long last the Communists are prepared to concede that the West stands to gain at least as much from disarmament as the Iron Curtain countries. The first sign of a change in the old party line on the arms race occurred at an international conference on the economics of disarmament held in West Germany earlier this month. The meeting, which brought together for the first time leading economists from both sides of the Iron Curtain, agreed that disarmament, far from disrupting the economies of the capitalist nations, would speed up the growth rates of both sides. The conference reached these startling conclusions:

- All countries—including the underdeveloped nations—would benefit immensely (in terms of economic growth rates) from any substantial cuts in military spending.

- Prosperity (with full employment) can be achieved by any economy without resort to an armament race.

- The transition period—from an economy based on large military machines to a total peacetime economy—can be eased considerably by proper planning. Moreover, the difficulties of such a transition, it was held, have been greatly exaggerated.

- The true cost of vast military spending programs can't be measured in terms of dollars and cents alone. It's necessary to take into account the enormous drain on the energy of the scientific community involved in developing new weapons of destruction. Disarmament would mean that most of this energy could be allowed to flow back into creative work that would benefit all mankind.

The conference, which included economists from the U.S., West Germany, Sweden, Great Britain, USSR, Hungary, East Germany, Czechoslovakia, and Poland, will be followed up by similar meetings.

Man Vs. Machine

The disappointing showing of the Post Office Dept.'s automated mail handling system in its first trials at Providence, R. I., undoubtedly has raised the hopes of the people who are always sighing nostalgically for the good old days.

The country's first large-scale automated postal system, hailed as one of the marvels of the age, was installed amid great fanfare in a specially built post office. But in no time at all, the electronic monster had the whole place in an uproar, committing such atrocities as tearing up envelopes, accepting Christmas seals and dirty smudges in lieu of stamps, misdirecting mail, and otherwise causing delivery delays of as much as two to three days.

Post Office officials, scandalized by this unseemly behavior, hastily went back to the old manual handling system. Meanwhile, critics of automation, including some staunch Congressional defenders of the status quo, are demanding that the whole experiment be junked. At the same time, the embattled manufacturer is pleading that the new system be given another chance. He wants to remove some of the bugs that showed up in the first trials and also to better acquaint employees with some of the mysteries of the system's operation.

The mail handlers themselves are not saying much, but it's safe to assume they're breathing a lot easier now that the threat of technological unemployment has been lifted—at least for the time being.

Footnote to the Organization Man

Modern man, according to psychologists, shows an alarming tendency to identify himself with the group, even in situations where he ought to know better. In a series of so-called "brainwashing" susceptibility tests, reports Paul G. Torrance, a psychologist provoked a disagreement between individuals and small groups "on a clear and simple matter of fact within the environment." The idea was to see how many of the subjects would hold to a correct opinion in the face of the wrong opinion deliberately stated by an experimentally guided group. Only one-fourth of the subjects stuck to what they believed was the truth, the psychologist found.

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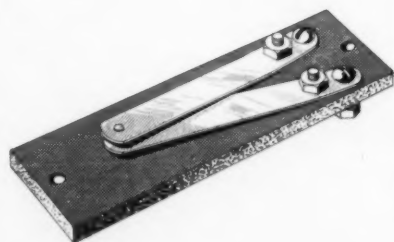
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PURCHASING WEEK ASKS . . .

What is the ratio of your department's operating costs to your purchases?



Dale Augsburg, director of purchases, Duriron Co., Inc. (corrosion resisting mechanical equipment), **Dayton:**

"During the company's fiscal year ending Dec. 31, 1960 (with net sales of \$16,123,979), purchasing's operating costs in relation to total purchases were at the rate of \$1 expense to \$51 goods and services purchased. For each \$1 of expense 80¢ was spent for salaries and wages, 9¢ was charged to depreciation of equipment and rental of departmental space, while 11¢ was used for communications and miscellaneous supplies."



R. E. Crabbe, director of purchasing, (capacitors, resistors & filters for electronic, electrical, & radio & TV applications), **New Bedford, Mass.:**

"The ratio in our company for 1960 was 1.4%. Such a figure has very little significance except as a measure of control within a given industry and a given company for a year-to-year comparison. The specific functions performed, product classes handled, and types of internal controls which are in effect in a particular company will strongly affect such percentage ratios."



D. A. Kepler, director of purchases, General Tire & Rubber Co., Akron:

"We do not have a centralized purchasing operation. Currently our ratio of departmental costs to purchases ranges between 0.15 and 0.50%, depending on size of the purchasing function at each location. In compiling our costs, we accumulate all items of expense including OAB tax, unemployment insurance, dues, supplies, travel, telephone, etc. These costs are compiled monthly by location and enable us to compare similar operations."



A. M. Kallan, purchasing manager, James B. Lansing Sound, Inc. (loudspeakers), **Los Angeles:**

"At present our purchasing department cost is approximately 4% of purchases. Here, purchasing, in addition to the usual purchases of material and services, checks all invoices with receiving reports and purchase orders. Accounts payable need only verify the authorization for the purchases and check the extension before payment."



Les Braverman, purchasing agent, Industrial Acoustics Co., Inc. (testing rooms, etc.), **New York:**

"It is 3.3%. 'Purchases' include material bought specifically for jobs, subcontract items and raw materials. Here, purchasing is also responsible for ordering and controlling all supplies—i.e. factory, engineering, laboratory and office, as well as repair and maintenance. These non-included items represent 14.8% of total purchases. 'Operating costs' include salaries of personnel, employee benefits and an appropriate share of all expense items."

NEXT WEEK—APRIL 3

Six purchasing men answer this question:

How long a training period do you set up for a new man in purchasing?

You can suggest a question to be answered in this department by writing:

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RIGID

The Ridge Tool Company, Elyria, Ohio, U.S.A.



HEAVE HO: Lightweight plastic pipe developed by Phillips Petroleum Co. for oil and gas gathering can be installed without expensive equipment. Sections can be joined in minutes with a portable welder.

Plastic Pipe Makes New Bid for Oil, Gas Market

Dallas—A new try by plastic for a place in the pipeline market may give steel some stiff competition.

Making the bid is Phillips Petroleum Co., which is putting its plastic "Marlex" pipe on the market for the first time. Phillips, which has used the pipe internally since 1958, has about 300 miles of it in operation in low-pressure oil and gas gathering systems.

Phillips claims the high-density polyethylene pipe is 20% to 30% cheaper than steel. On 2

to 4 in. dia. pipe, it says the installed cost for plastic runs about 80¢/ft., compared with \$1/ft. for steel.

Some contractors had rejected earlier types of plastic pipe on grounds that they failed to hold up over long periods of use and were difficult to join. But Phillips says the problem of durability has been licked by "catalytic polymerization"—a process that increases the density of the polyethylene pellets used in extruding the pipe.

Joining of pipe sections also

has been simplified by a "butt fusion" process. This consists of heating the two ends of a joint and pressing them together in a weld. Phillips makes portable equipment, which it says will do the job in three to five minutes.

The company says its plastic product has four main advantages over steel.

• **Corrosion resistance.** Phillips says no other commercially available pipe in a comparable price range is as resistant to chemicals or corrosive soils as polyethylene.

• **Electrical resistance.** Since the plastic is a nonconductor, it is not subject to electrolytic corrosion and doesn't require cathodic protection.

• **Flexibility and toughness.** Phillips says the pipe can be squeezed together or turned in a 90 degree angle without breaking. In addition, a 20 ft. joint of 6 in. pipe weighs only 46 lbs.—one-eighth as much as a similar steel unit.

• **Inside walls.** The interior pipe wall is smooth, which reduces the possibility of scale build-up.

Phillips has placed the plastic pipe with three oil field supply outlets—Mid-Continent Supply Co., Ft. Worth; Bovaird Supply Co., Tulsa, and Rodman Supply Co., Odessa, Tex.

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clean and fresh-looking. RUBBER end caps protect desk and filing cabinet tops. Metal hinges.

All these extras are yours at no increase in price. Two popular models: RAVEN, in vinyl-guarded black Levant simulated leather; and NOMAD, in vinyl-guarded blue canvas. Order them today at your stationery supplier. Ask to see the most modern post binders made. *©TM of Borg Warner Co.



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TVA Awards Contract For Condenser Tubing

Knoxville, Tenn.—Tennessee Valley Authority awarded a contract for 1,160,000 ft. of condenser tubing to Wolverine Tube, a division of Calumet & Hecla, on a low bid of \$313,276.96. Tubing will be used in the 500,000-kilowatt generating unit now being built at the Colbert Steam Plant, northwest Alabama.

The Wolverine bid, one of 12 received, was lower than the bids of three foreign companies, and of all domestic bidders, including six companies that submitted identical bids of \$373,490.72.

On one item of 1,100,800 ft. of tubing, Wolverine bid .2626¢/ft.; the six equal bidders, .3173¢ on another for 59,200 ft., Wolverine and the six equal bidders quoted the same figure—.4089¢.

Two years ago when bids were received for condenser tubing for the large unit which recently went into commercial operation at the Widows Creek Steam Plant, Wolverine was lowest domestic bidder, but was outbid by two English companies.

Japanese Plywood Plan

Tokyo—Japanese plywood producers are proposing a plan to streamline exports to the United States.

The Japan Plywood Industrial Assn. will inaugurate a new export system pending government approval. Under the new system, the association will buy up all plywood for export, and export volumes will be determined quarter by quarter in consideration of demands in the American market.

The April-June quota will be approximately 14-million sq. meters or 80 % of the exports made during the same period of 1960.

Industry News in Brief

Republic to Expand

Beverly Hills, Calif. — Republic-Transcon Industries, Inc., a manufacturer of water heaters and other appliances, plans to enlarge its product line by acquiring the Mathes Div. of Glen Alden Corp. Mathes produces commercial, industrial, and residential air conditioning and heating equipment. Republic shareholders still have to approve terms of the acquisition, which provides that in return for Mathes, Republic will give 30% of its stock together with a \$2-million loan to Glen Alden.

Seagrave Diversifies

Columbus, Ohio — Seagrave Corp., in what it says is the first of a series of moves to diversify activities, has purchased Lacquer Corp. of America and two affiliates for \$1.3-million. Seagrave is a manufacturer of fire fighting apparatus. Lacquer Corp., which has plants in New York and New Jersey, specializes in aircraft lacquers and products used for screen printing of textiles. Its two affiliates, Sta-Rite Lacquer Co. and Titanine, Inc., produce specialized industrial finishes. Acquisition of the companies still must be approved by Seagrave's stockholders.

Crane to Expand

Chicago — Crane Co., a major producer of plumbing, heating, and cooling equipment, plans to expand operations in the pipe field by acquiring the physical assets of Midwest Piping Co., St. Louis. The \$19.1-million sales agreement must be approved by 75% of Midwest's stockholders. Midwest's management cited shrinking profits due to "extremely competitive bidding" in the utility, oil refining, and other industrial fields as the reason for the sale.

Construction Started

New York — Owens-Illinois Glass Co. began work on a new plant in Jersey City for the manufacture of high-density polyethylene bottles. Scheduled for completion this summer, the plant will be the sixth opened by the company since it began making the blown plastic bottles three years ago. The company said the new factory and warehouse would cover approximately 160,000 sq. ft.

AVC Drops Distributor

Philadelphia — American Viscose Corp. has resumed direct sales of its line of Avisco industrial sewing threads, following the termination of a distribution arrangement with American Thread Co. The Avisco thread is a rayon of high-strength tire yarn quality, used as a closure for industrial paper and fabric bags. It is offered in 1,100-denier, 1,500-denier, and 1,780-denier sizes.

Mobil Strikes Oil

New York — Mobil Oil Co., a division of Socony Mobil Oil Co., said exploratory wells

drilled in four new areas off the Louisiana coast appear to have uncovered significant reserves of oil and gas. Mobil has a joint interest in the properties (acquired in a Federal lease sale 13 months ago) with Gulf Oil Corp. and Humble Oil & Refinery Co., a subsidiary of Standard Oil Co. (New Jersey). The companies already are negotiating for the sale of gas from the acreage, while widening drilling operations in an effort to outline the productive areas of the new fields.

Bostitch Broadens Line

East Greenwich, R.I. — Bostitch, Inc., has broadened its product line to include heavy-duty air-drawn stapling and nailing tools by purchasing Calwire Products, Inc., Visalia, Calif. The transaction included the purchase of the Calwire selling organization, Calnail, Inc. Bostitch said it will continue to manufacture the Calwire products in their present designs and will market them through its own sales organization.

Merger Plan Approved

Cleveland — Midland-Ross Corp. and Industrial Rayon Corp. have agreed on a plan for merger that will be presented to the stockholders of both companies in April.

The proposal represents another move in Midland-Ross's campaign to diversify its activities. Until a few years ago, the firm was largely dependent on its sales of automobile frames. Through acquisitions and development it has since diversified widely—mainly into the production of capital goods such as industrial heat treating equipment. Industrial Rayon produces

cord for tires and other industrial uses, and textile yarns for the apparel and home furnishings industries.

IBM to Move Div. Hq.

New York — International Business Machines Corp. plans to move the headquarters of its Supplies Div. from here to Dayton, N.J., where a new building will be erected by late 1962. The division manufactures punched cards and markets magnetic tapes and other supplies for accounting and data processing machines.

Important facts to know about Laminated Plastics

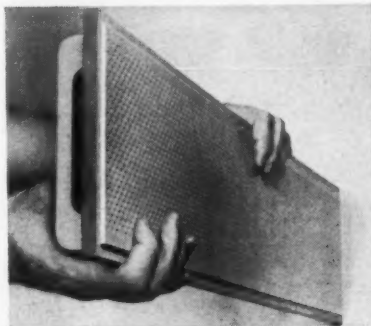
LAMINATED PLASTICS *What they are, where they can be used*

Taylor laminated plastics, also known as reinforced plastics, are thermosetting-type materials formed by impregnating paper, cotton cloth, asbestos, glass cloth, nylon or other base materials with synthetic resins and fusing them into sheets, rods, tubes and special shapes under heat and pressure. These materials exhibit a valuable combination of characteristics, including high electrical insulation resistance, structural strength, strength-to-weight ratio, and resistance to chemical reaction; also adaptability to fabricating operations.

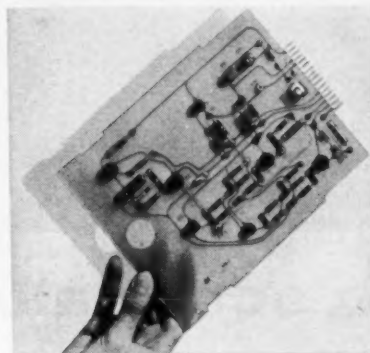
Types of laminated plastics made by Taylor
There are four basic types of Taylor laminated plastics commonly specified and used throughout industry today. They are as follows:



Phenolic Laminates. Paper, cotton fabric or mat, asbestos, glass cloth or nylon bases impregnated with phenol formaldehyde resins. These provide strength and rigidity, dimensional stability, resistance to heat, chemical resistance, and good dielectric characteristics. Some Taylor grades are excellent basic materials for gears, cams, pinions, bearings and other mechanical applications. Others are widely used in terminal boards, switchgear, circuit breakers, switches, electrical appliances and motors. Also in radios, television equipment and other electronic devices; and in missiles as nose cones, exhaust nozzles, and combustion chamber liners.

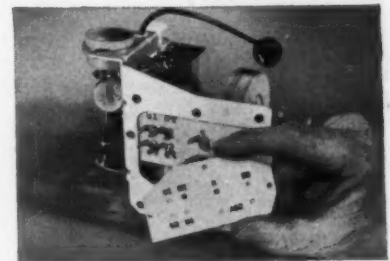


Melamine Laminates. Glass cloth or cotton fabric impregnated with melamine formaldehyde resin. Taylor melamine laminates have superior mechanical strength and are especially desirable for their arc-resistant qualities. Good flame and heat resistance, good resistance to the corrosive effects of alkalis and most other common solvents, besides other favorable characteristics. Typical applications include arc barriers, switchboard panels, and circuit-breaker parts in electrical installations.



Silicone Laminates. Continuous-filament woven glass fabric impregnated with a silicone resin. These laminates combine high heat resistance (up to 500°F. continuous) with excellent electrical and mechanical properties. They are primarily used in high-temperature electrical applications and high-frequency radio equipment.

Epoxy Laminates. Continuous-filament woven glass fabric or paper impregnated with epoxy resin. Glass-fabric grades are designed for use in applications requiring high humidity-resistance, good chemical resistance,



and strength retention at elevated temperatures. Paper grades are used under high-humidity conditions where resistance to acids and alkalis is required. Both grades are characterized by good dielectric strength, low dielectric losses, and high insulation resistance even following severe humidity conditions.

Recent technical advances in the bonding of various metallic and nonmetallic materials to laminated plastics have opened up new design opportunities. It is now possible to bond virtually any compatible material with a laminated plastic to form a composite which combines the advantages of both. One of the first composite materials was a copper-clad laminate used for printed circuits. More recent composite laminates, usually manufactured to customer specification, include the following: Taylorite® vulcanized fibre-clad, rubber-clad, asbestos-clad, aluminum-clad, beryllium-copper-clad, stainless-steel-clad, magnesium-clad, and silver and gold-clad. Any one of these materials can be sandwiched between sheets of laminates, too, and can be molded to fit specific requirements.

Send for complete information about any or all of these Taylor laminates. And remember Taylor's new selection guide will simplify your problems in choosing the right laminate for your specific application. Taylor Fibre Co., Norristown 39, Pa.

Taylor

LAMINATED PLASTICS VULCANIZED FIBRE

Keezer: 'Results of the Irksome Economic Hokum Sweepstakes'

(Continued from page 1)

just a few of the entries in the irksome economic hokum sweepstakes:

"What goes up must come down." That one was entered quite independently by several economists who might have been studying the course of prices over the past century.

"Creeping inflation is a small price to pay for the prosperity it insures." Of course, the historical fact involved here is that we have had prosperity when prices have been rising, have been falling, and have been stable. There is absolutely no insurance for prosperity in inflation, creeping or otherwise.

"The big population increase of the '60s guarantees expanding prosperity." I suppose the sponsor of this one had it in

mind that how much added production (and of what quality) goes along with these added millions has something to do with prosperity, too.

"A dollar spent by the individual is much more constructive than a dollar spent by the government." I imagine that the point could be that what the dollar is spent for makes some difference—say private dollars which might be spent for narcotics and public dollars that might be spent for education or, perhaps, vice-versa.

"If that economist understands the economy so well why isn't he a multimillionaire?" This one doesn't bother me in the least. I simply put it down to an abysmal ignorance of the nature of the noble art of economics as opposed to the much lower acquisi-

tive art of making money. A few economists have been successful practitioners of both, but they have been rare.

I would welcome any contributions of what seem to you particularly annoying bits of economic hokum, or if you prefer, widely circulated bits of hokum about the arts of purchasing which raise your hackles.

While my irksome economic hokum search produced a rich return in samples, this was not its only or perhaps even its most illuminating dimension. The search also sharply underlined the proposition that, just as one man's meat is another man's poison, so one economist's hokum is another economist's truth. In fact one of my prize initial entries in the hokum sweepstakes was defended by an economist of great eminence as the essence of truth. And there were other striking clashes in the entry list.

It would be deplorable if my mention of this result of the search were to suggest that I think that practice of the art, and in some measure the science, of economics is the chaotic parading of prejudices and preconceptions. On the contrary, there is a central body of principles and propositions which are demonstrably true and which any community flouts at its peril.

Room For Error

But it is also true that in the nature of the practice of economics and economic policy-making there is wide room for error and honest difference of opinion. Economists, believe it or not, are prey to the full range of human emotions and frailties. They love and hate just as others. The central focusing point of their study is the unpredictable human animal in pursuit of his living. And in economic policy-making one of the decisive dimensions is hidden by the perpetual fog which obscures the future.

By centralizing the process of economic policy-making, none of the great risks of error is eliminated or even reduced. Centralization may make it possible to hide major blunders for a time, both by restricting knowledge of them as well as freedom to squawk about them. But it cannot obliterate them.

Russian System

Right now we Americans seem bedazzled by the notion that the Soviet economic system is a paragon of economic effectiveness. But the fact may be—and indeed the probability is—that perfectly colossal economic errors are being made in the USSR and obscured for the nonce by centralized bureaucratic authority.

As I see it, one of the greatest virtues and perhaps the transcendent virtue of our American business system, as well as perhaps its least appreciated virtue, is that of diffusing power. Power is exercised by business, a lot of it, and great power is exercised by the government, too. But while we have both business and government in the field we escape that centralization and consolidation of power which (1)



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destroys individual political and economic freedom and (2) compounds the possibility of making really gargantuan economic errors. As the saying goes, it takes a really big company to make a big mistake. But a giant government is in a class by itself in this line.

Inevitable Costs

For this dispersion of power there are some inevitable costs. We are paying one of them right now in the form of a business recession. It is part of the price we must expect to pay from time to time for having economic power diffused in more than 4-million separate business establishments all privileged to make mistakes in their own particular way.

We are being told from the highest places in Washington that in perilous times like these we cannot afford anything but continuous expansion of the economy. If the business community cannot manage it, we are advised, then the government must step in and in one way and another, mostly by spending, keep the economy going full steam ahead all the time.

This is another way of saying that we cannot afford to have the sort of business system we have and which, with its ups and downs, has produced what the English historian J. K. Hancock has called the "western miracle"—that of providing a higher and higher standard of living for more and more people. It's a cinch to provide a very high standard of living for a few potentates. But to do it for a great and rapidly expanding mass is a vastly more imposing accomplishment.

Business Black Eye

A number of things have happened lately to give the business system a black eye—the antitrust criminal convictions, the conflict of interest cases—and at a time when this will be particularly encouraging to those among the new frontiersmen who would like nothing better than to have uncompromised command of the nation's key economic controls. It will be a tragedy, however, if sins of omission and commission in the business community, of which there are always plenty, obscure its crucial role in defending both our liberty and our prosperity by diffusing power, and not least, power to make massive economic mistakes.

Some Good, Some Bad

There are obviously a lot of things that government has done and can do both to strengthen and supplement the business system in its role as the nation's

AF Inventory Control Moved to Dayton Base

Dayton, Ohio—The Air Force has moved its computer system for controlling inventories and distribution of parts from Mobile, Ala., to the Air Materiel Command headquarters at Wright-Patterson Air Force Base here.

The move aims to increase the speed and efficiency of the system and to reduce the manpower devoted to computer development and planning. The data system involves 60 computer programs and controls some 665,000 items.

central and key economic instrumentality. I personally think the Kennedy Administration has hit upon a number of them. But I am even more certain that that the concept of this Great White Father is a phony. I wasn't needing any support for that conviction, but my little survey of irksome economic hokum provided some.

Editor's Note: Those who wish to pursue Dr. Keezer's own line of economic reasoning—not irksome—will find the latest exposition of it in "New Forces in American Business" (McGraw-Hill; 1959).

Louisville P.A.'s Get Tips on Handling Salesmen

Louisville, Ky.—What the P.A. expects from a salesman during a sales call was spelled out by NAPA District 7 professional development chairman.

John J. Tierney, Jr., purchasing agent for W. M. Cissell Mfg. Co., was invited by Ray Hale, warehouse manager, Louisville Steel Service Center, Jones & Laughlin Steel Warehouse Div., to conduct a special interview techniques session for his salesmen.

"Set up a desk and two chairs at one end of a conference room;

line up some chairs at the other end of the room for every man on your sales staff; and invite a sharp purchasing agent to sit behind the desk. Then interview three or four of your salesmen and tell everyone what they did wrong—and right."

This method of training both new and veteran salesman has been judged the most effective by Hale. "That is," he said, "if the cooperating purchasing agent will pull no punches."

Tierney, who is also chairman of the Louisville Purchasing

Agents Assn.'s Professional Development Committee, conducted four interviews as if they were real sales pitches. The salesmen, two of whom actually call on Tierney regularly, based their interviews on products that Tierney's company uses and Jones & Laughlin sells.

After the three-hour training session was over Hale said, "Not only did we learn what P.A.'s expect of salesmen in the interview, but we became even more aware of the growing excellence of today's conscientious, ethical P.A."

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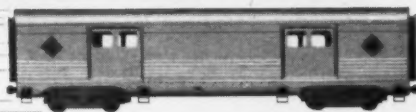
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This is only a partial list applying between all points. Call your local R E A office if your commodity is not included here. If it is, call for the complete rate story—it will show you big savings.



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JUMPING THE TRACKS: New two-way crane designed by Harnischfeger Corp., Milwaukee, has train and rubber-tired wheels for rail or highway travel, costs about one-fourth as much as standard flatcar crane.

Dow Expands West Coast Tanker Fleet

Oakland, Calif.—Dow Chemical Co. has added a third tanker to its fleet in a move which it says may change the nature of the chemical industry in the West. As a result of the increased capacity for cheap water transport, Leland A. Doan, Dow's eastern division general manager, said:

• Dow will be able to terminalize large bulk supplies of heavy industrial chemicals on the Pacific Coast and to supply customers with raw materials at Eastern prices.

• It may now be possible to establish an integrated organic chemical industry on the Pacific Coast. For instance: A waterfront plant being built by Dow at Kalama, Wash., will be geared for producing phenol, but could in time become a chemical complex.

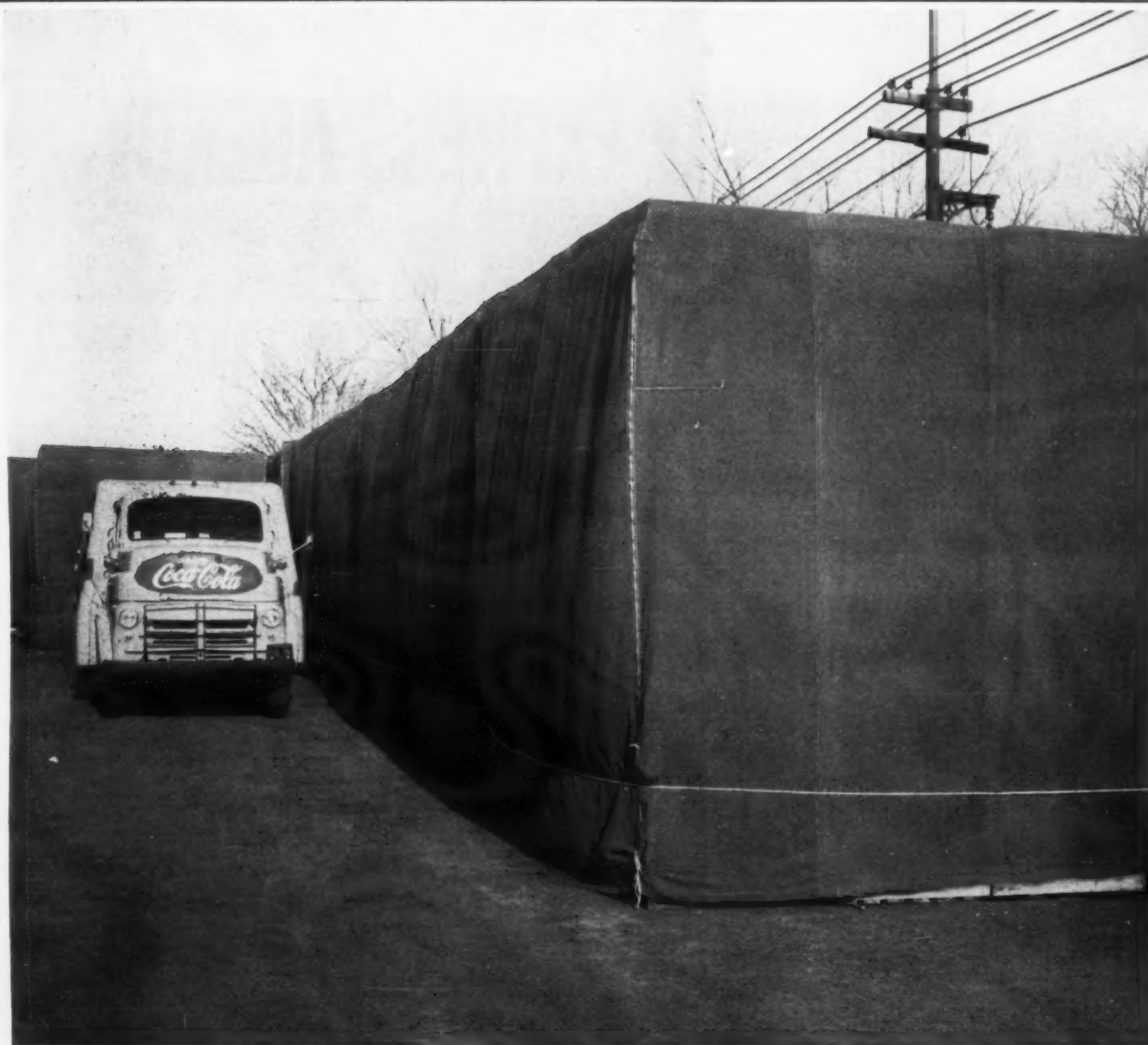
• The West may change from a net importer of chemicals to an exporter. Example: Dow's Pittsburg, Calif., plant has more capacity for producing solvents than can be absorbed on the Western market. With the tank-

ers, the company will be able to take up some of this slack by shipping 10-million lb. of solvents to the East Coast each year.

Dow's newest vessel is the Leland I. Doan, named after the company's president. First West Coast stop on the 18,000-ton tanker's maiden voyage was at McGuire Terminals here in Oakland, where it unloaded chemicals from Dow's plant at Freeport, Tex. The ship also was scheduled to stop at the Pittsburg plant and at Dow's facilities in the Los Angeles area.

The tanker's cargo consisted of styrene, caustic soda, chloroethene, trichloroethylene, ethylene glycol, diethylene glycol, propylene glycol, and two soil fumigants, telone and vidden-D. It also is equipped to carry amines, carbon tetrachloride, chloroform, methylene chloride, epichlorohydrin, ethylene dichloride, glycerine and perchloroethylene.

Dow says that with the three tankers it will be able to ship more than 600,000 tons of chemicals annually. The tankers are owned and operated by Marine Transport Lines.



A WINTER STORAGE PROBLEM — In the Spring of 1960, the Coca-Cola Bottling Company of Chicago, Inc., carried on a highly successful promotion of the now firmly established "king-size" bottle, to be purchased in eight bottle cartons. So great was the immediate acceptance of this campaign that volume return of the bottles to the four Chicago plants presented a definite winter storage problem. After carefully studying the situation, it was decided that the most efficient solution would be to store the bottles and cases under specially constructed canvas covers. Over two hundred canvas covers were designed for this purpose, each one tailored with zippered corners, and each cover measuring 13x13x12 feet. Covers were made by M. Mauritsen & Co. from Mount Vernon duck.

This is another example of how fabrics made by Mount Vernon Mills, Inc. and the industries they serve, are serving America. Mount Vernon engineers and its laboratory facilities are available to help you in the development of any new fabric or in the application of those already available.

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MOUNT VERNON MILLS, INC. PRODUCES A WIDE RANGE OF FABRICS IN THESE CATEGORIES: Army duck, ounce duck, wide duck, drills, twills, osnaburgs and sateens • Fabrics used by the canvas goods manufacturing industry • Hose duck, belt duck, chafer fabrics and other special fabrics for the rubber industry • Laminating fabrics and special constructions for the plastics industry • Ironing machine aprons and cover cloths for the laundry industry • Special fabrics for the coating industry • Standard constructions and specialties for the shoe, rug and carpet industries • Dryer felts for paper making, aprons for harvesting machines • Mop yarns and drapery fabrics • Work clothing fabrics for industry • Fabrics for U. S. Army and Navy • Specification fabrics for industry generally.

Universal-Cyclops Adds Fast-Machining Stainless To Steel Production Line

Bridgeville, Pa. — Universal-Cyclops Steel Corp. has announced commercial production of a stainless steel that can be machined up to 50% faster than regular Type 303. The alloy is designated Type 303MA.

The company said tests of initial production runs in over 100 customer plants showed that the new material permits longer tool life and has a corrosion resistance 25 times greater than 303's and approaching that of Type 304.

The addition of aluminum to the alloy reduces sulphur content to 50% of Type 303's normal level. This produces an improved finish and improved resistance to longitudinal splitting, the company explained.

The new material can be electro-polished to a higher luster said to resemble "the best results obtainable with low sulphur stainless steels such as Types 302 and 304." It also can be arc welded, flash welded, percussion stud welded, and brazed.

Universal-Cyclops expects cold finished bar to account for the lion's share of an anticipated \$25-million-per-year market, and has stocked the Uniloy 303MA "in all popular bar sizes in rounds, squares, and hexagons" for immediate delivery.

U. S. Steel Opens Lab

Provo, Utah—U. S. Steel has opened a new research laboratory at its Geneva Works here for studying Western iron ores, coal, coke, and other raw materials used in making steel.

Among the projects already planned for the laboratory's 30-man staff are studies on the up-grading of iron ores and lime-stones; research into methods for agglomerating or "binding" iron ore in order to produce better material for blast furnaces, and studies on coal blending and carbonization.



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CITY _____

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DATE _____

First Mid-Term Examination Purchasing,
Graduate School of Business
Stanford University

1. The following is inventory information concerning raw material "X":

Average daily requirement	20 units
Average price	\$60 per unit
Maximum possible requirement for any 30-day period	900 units
Minimum possible requirement for any 30-day period	200 units
Economical order quantity	1,500 units
Transportation time	10 days
Lead time	30 days.

 - A. Based on this information, what is the ordering point (the number of units on hand when the order is placed)? Explain.
 - B. What is the minimum possible inventory? Explain.
 - C. What is the maximum possible inventory? Explain.
2. In a company that recognizes purchasing as a major function of management, coordinate with the other major functions:
 - A. Outline the most critical problem areas of the purchasing function that you think should be developed over the next five years.
 - B. What action should top management take to assist in the solution of the problems you presented in "A"?
 - C. What action should the purchasing executive take in connection with these problems?

GRADUATE SCHOOL exam emphasizes advanced techniques such as 'EOQ', relation to top management.

Could You Pass

Here's the type of test today's P.A. candidate must conquer when he's trying to pass in:

Graduate School

Undergrad Work

Civil Service

Detroit University
Undergraduate Exam

Part I. True or False. Write T or F in the blanks provided. (20 items)

1. ____ On the average, purchasing of materials and equipment represent only about 20% of total cost of manufacturing.
2. ____ Right quality means the best that is made or in other words the highest price "line."
3. ____ Others contend right quality means "suitable for a purpose," neither superior nor inferior.
4. ____ Specifications provide a measurable basis of quality.
5. ____ Standardization is always identically equivalent to specification.
6. ____ Commercial specifications are solely prepared and issued by the National Bureau of Standards.
7. ____ If all bids on an important commodity are identical, a purchasing agent usually regards it as prima facie evidence of collusion.
8. ____ "Definite quantity contracts" are best suited for major raw materials and components for scheduled production.
9. ____ "Blanket contracts" or "term contracts" involve estimated quantities for a certain period, but prices are always as low as the definite quantity contracts.
10. ____ "Open market" buying applies to purchases of nonrepetitive items such as machinery and repair parts.
11. ____ In general, quantity determination is not a responsibility of purchasing department.
12. ____ Two important factors guiding determination of purchase quantity are: the price trend in market and cost of carrying inventory.

2.

13. ____ The commitments of a "purchasing agent" are always legal and binding upon his company but not those of a "buyer."
14. ____ A purchase order alone is always an enforceable contract.
15. ____ An indefinite order as to price and quantity for future delivery may be void if no reasonable legal obligation on the buyer can be established.
16. ____ Statements of quality usually made by salesmen are not enforceable as real guarantees.
17. ____ Sales made "as is" do not cancel implied guarantees.
18. ____ Infringement of patents may never be legally transferred to seller from buyer.
19. ____ Whatever the cause, a contract is inoperative in the event of failure by one to perform.
20. ____ Cancellation of a contract is not necessarily a cause for legal action.

Part II. COMPLETION. In the spaces provided insert the word or words required to correctly complete the statement. (13 items.)

1. A valid and enforceable purchasing contract must include an ____ by ____ and ____ from ____.
2. Three useful "tools" of purchasing management should include ____, ____ and ____.
3. The usual source of current commodity and product information for the buyer would be ____ and ____.
4. Follow-up can be efficiently performed by either ____ or ____.
5. Measurement of purchasing performance concerns itself with two broad classes, namely ____ and ____.

UNDERGRADUATES concentrate on basics of buying such as contracts, specifications, authority of P.A.'s.

Pass These Examinations?

Here's a chance to check your purchasing knowledge by means of examinations at three levels of qualification in the purchasing field—undergraduate, graduate school, and civil service on-the-job qualifying tests.

These are actual examinations given by Lamar Lee, lecturer in purchasing at Stanford University Graduate School of Business, P/W consultant Dr. Clyde T. Hardwick, professor of business administration at Detroit University, and the New York City Civil Service Commission. Answers to the examinations may be found on page 22.

Besides giving you a useful self-test of your academic purchasing knowledge, these exams show the kind of material covered in purchasing courses.

The undergraduate tests put more emphasis on purchasing fundamentals, such as the requirements for an order, legal responsibilities of the buyer, the different types of contracts, and the like. Definite factual knowledge such as this can be tested by objective examinations, such as true-false, multiple choice or completion questions.

The graduate level course, or the evening-program or local association advanced course includes more of the new mathematical techniques for purchasing, such as the economic order quantity concept in the Stanford examination. Students at this level are expected to have mastered the nuts and bolts, and should be ready to think about the big picture, such as the problems the top purchasing manager will face in the next five years.

They also should have enough general business knowledge to be able to relate the purchasing department to the rest of the enterprise.

In other words, tomorrow's trained purchasing manager is being brought

up to think of procurement as a function affecting every part of the company, and not just an isolated department that has no contact with other managers except on rush orders.

The civil service exam taps a different kind of experience—the on-the-job appreciation for purchasing problems and ethics. However, industrial P.A.'s will find much in common with the municipal buyer in some of the questions, but others—such as municipal buying of school supplies—demand specialized, on-the-job knowledge that can't be learned from textbooks.

Other advanced purchasing courses often use cases for exams, such as those from the Lewis and England book, "Procurement, Cases and Principles." These cases are statements of the facts and figures, and human relationships found in a purchasing situation. The student must develop a proposed course of action after analyzing the figures in the case, and present his proposal as the solution to the exam. However, there is no single answer to this type of exam, since the proposal must depend on the particular approach each student has, and the arguments and facts he marshals to document his case.

Once the industrial P.A. has left school, chances are that he won't run into exams very often. However, many municipal, state, and federal buyers face tough competitive examinations for promotion. And in Great Britain, the British Purchasing Officers Assn.—counterpart of the NAPA—has a professional certification test, much like that for certified public accountants (see P.W. April 14, '58, p. 12). The National Institute of Governmental Purchasing is currently working on a certification exam for American governmental buyers.

New York City Civil Service Qualifying Exam

1. A. Define and give the application of each of the following in the field of purchasing.
 1. Forward purchasing.
 2. Spot market.
 3. Negotiated bidding.
 4. C.I.F.
 5. 2/10 n 30.
- B. 1. What is the difference between the basing-point and mill-base methods of pricing commodities?
2. What is the significance to a buyer of the designation of the f.o.b. point other than responsibility for payment of transportation charges?
2. A. Purchasing by specifications offers one of the best objective methods of quality buying. However there are limitations, difficulties or disadvantages that may be entailed in their preparation and use. Outline the possible limitations of the application of specifications in purchasing.
- B. List the different circumstances under which the description of a commodity by brand name is desirable or necessary.
- C. The following clause was found in a purchase contract: "Either party may cancel any portion of this order affected by failure of the other to comply with the terms and conditions hereof." Of what value is this clause in the contract? Explain your answer.
3. A. A salesman for a reputable firm tells you, as a buyer, that a competing firm which has large contracts with the City is undergoing severe internal stresses. He asserts that they may not be able to meet the delivery requirements of the contract or may attempt to ship goods of inferior quality. How would you handle this situation? Explain your answer.

2.

- B. A buyer solicited replacement parts for equipment. He found that genuine parts costs were high and somewhat out of line. The using agency then submitted a sample and a blueprint of that required part which became part of a bid offer. The original manufacturer protested, stating that he had originated the equipment and unfair advantage had been taken of his ingenuity and skill. How should this vendor be handled? What are the ethics of the situation?
- C. Suppose that a vendor informs you that certain specification requirements of a using agency are unnecessarily complex, resulting in unwarranted costs for an item. What would you do? Why?
4. A. What are the advantages of including inspection and testing procedures in specifications?
- B. When material is rejected after inspection, who usually assumes the costs of 1) transportation and 2) testing?
- C. When may it be more desirable to buy from a distributor or wholesaler rather than from the manufacturer?
- D. What type of contract is most desirable during a period of 1) rising prices; 2) declining prices?

CIVIL SERVICE competitive exams tap on-the-job experience as prerequisite to promotion to higher level.

NAPA Districts Complete Balloting on Nine Vice Presidents

New York—All nine NAPA districts have completed their balloting on 1961-62 vice presidents.

District 1, again this year, was the first to select a new man, and District 6 was the last to close the election cycle. The nine men chosen all have a history of active and interested service in association affairs.

The new slate of district vice presidents, who will take office at the group's annual convention, June 4-7, includes:

DISTRICT 1



Hawaiian-born **William G. Watt** is manager, purchasing and packaging, at California & Hawaiian Sugar Refining Corp., San Francisco. Watt, who joined the firm over 25 years ago, headed the Northern California Assn. during 1954-55.

DISTRICT 2



Ex-pro basketball player **Chris L. Maier** has been plant buyer for Lone Star Steel Co., Lone Star, Tex., since 1953. A member of the Shreveport Assn., Maier has been instrumental in furthering association affiliation.

DISTRICT 3



Galen Andrews has served in all offices of the Rock River Valley Assn. Andrews, manager of purchases, Barnes Drill Co., Rockford, Ill., is a past winner of the Brugge-man Award for outstanding contribution to purchasing.

DISTRICT 4



A charter member of the Evansville Assn. **Charles S. Schrader** is director of purchasing, Potter & Brumfield Div., American Machine & Foundry Co., Princeton, Ind. P.A. for over 20 years, Schrader has been chairman, District 4 public relations committee, the last four years.

DISTRICT 5



Former accountant, **Dalton A. Cook** rates the distinction of being the first district vice president to represent the hotel industry. Cook, director of purchases, Mayflower Hotel, Washington, D. C., is also the first District 5 vice president to be a Washington Assn. member.

DISTRICT 6



William P. Bray, senior buyer, purchasing department, Firestone Tire & Rubber Co., Akron, is national director of the Akron Assn. A University of Akron graduate, he joined the firm in 1939 as secretary, service department.

DISTRICT 7



From sales to purchasing is the route **Mark B. Eubanks, Jr.**, took at Riegel Textile Corp. Since 1957 he has been director of purchasing and transportation for the Ware Shoals, S. C., firm. Eubanks is national chairman of NAPA's public relations committee.

DISTRICT 8



A native of Rochester, N. Y., **William T. Naylor** is purchasing agent, General Railway Signal Co., Rochester. Naylor has been a member of his local association since 1942 and heads the publications committee for the group's "Genesee Valley Buyer."

DISTRICT 9



J. Joseph Fogarty has been with the Division of Purchases, State of Rhode Island, for 19 years. Now procurement officer, Fogarty was secretary of NAPA Governmental Group, 1953-55, and is also a National Assn. of State Purchasing Officials member.



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many
hats

All of them...if you are to execute your responsibility in purchasing efficiently!

Management expects purchase values analyzed thoroughly. *Engineering* expects specifications to be matched exactly. *Production* wants the best but "get it yesterday." *Sales* wants quality brands but "keep the cost down." No wonder purchasing men lean heavily on suppliers who can help them satisfy all these demands!



must
you
wear?

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A CALL TO CHAIN BELT
ADDS A MAN TO YOUR STAFF
BUT NOT TO YOUR PAYROLL

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CHAIN BELT COMPANY

Answers to Examinations on Pages 18 and 19

Answers to Graduate School

The quantitative part of the examination has a correct answer. The essay part of this examination, like most examinations given at Stanford's Graduate School of Business, does not have a specific answer. The student is graded on the keenness of his perception and the logic with which he develops his thesis. The answers that follow are those that were given by William R. Kitchel, a typical student.

1. A. Average requirement, 30-day period = $30 \times 20 = 600$ units. $EOQ = 1,500$ units. Definition: lead time includes transportation, therefore the lead time = 30 days. Also assume that we want no

shortages. This means that if the maximum possible requirement occurs in lead time (from placing of order to receipt of order) the inventory will reach 0 just as order arrives.

Therefore, the order point must equal maximum requirement during lead time = 900 units.

- B. If the maximum possible requirement occurs during lead time, minimum inventory is 0 units or the order point 900 units less required 900.

C. Maximum possible inventory occurs after order received and when minimum possible requirement existed during lead time. The maximum inventory = order point - minimum requirement

$$+ EOQ = 900 - 200 + 1,500 = 2,200 \text{ units.}$$

2. A. 1. Extension of the use of value analysis to include (a) a separate department under the direction of the Materials Manager, (b) more sophisticated techniques, possibly the use of Operations Research and EDP, (c) clearer understanding of the problems of value analysis by the Engineering and Manufacturing Departments.

2. Improvement in the area of inventory control, especially in the use of EDP for the computation of order sizes, order points for items with variable usage and variable price, and improvement in the actual record

control of the stores function. 3. Integration of EDP inventory control system with EDP systems of vendors to reduce the cost and time of ordering, inspecting, recording, and to improve the flow of information. 4. Selection, hiring and training of competent purchasing and materials management personnel who will be able to administer the procurement function as a part of top management.

B. Top Management Action.

The most important part to be played by top management—especially the president and executive policy group—is to provide an organizational structure with the responsibility and authority needed to meet and cope with the problem areas outlined above. In addition, top management must select a man of ability to head the procurement func-

tion and should provide him with the training and support so necessary to make him an effective member of top management.

In particular, top management should:

1. Encourage the study of value analysis techniques by the purchasing department and promote discussions of the function among purchasing, engineering, and manufacturing personnel.
2. Encourage the purchasing department (and others interested in inventory control) to explore further the value of new techniques in inventory control.
3. Work with the purchasing department and the management of vendors to find a means of integrating the EDP control systems of each.
4. Provide further education for purchasing personnel to broaden their viewpoint and allow them to gain knowledge in new and more sophisticated materials management techniques.

C. What the Purchasing Executive Can Do.

1. Keep top management informed of the problems facing purchasing, the plans to meet these problems, and the progress being made.
2. Set up a separate department under his control with specific responsibility for value analysis.
3. Provide a program of instruction and study in the use of value analysis for all the buying personnel of his department.
4. Provide technical assistance in the area of inventory control.
5. Through cooperation with major vendors, urge the adoption of a language or program that will enable the integration of EDP systems and information between and among companies.
6. Develop a specific program for selecting and training purchasing personnel that will provide not only skill in purchasing, but management ability and the company viewpoint.

Answers to Undergraduate Exam

Part I

- | | | | |
|------|-------|-------|-------|
| 1. F | 6. F | 11. F | 16. T |
| 2. F | 7. F | 12. T | 17. T |
| 3. T | 8. F | 13. F | 18. T |
| 4. T | 9. F | 14. F | 19. T |
| 5. F | 10. F | 15. T | 20. T |

Part II

1. A valid and enforceable contract must include an offer, (proposal, bid) by seller (vendor, supplier) and acceptance (order) from buyer (P.A., authorized representative of company).
2. Three useful "tools" of purchasing management should include (three of these) value analysis, economic order quantities, negotiation, standardization, data processing, reports to management, and performance evaluation.
3. The usual source of current commodity and product information for the buyer would be market price reports and catalogs (salesmen, publications).
4. Follow-up can be efficiently performed by either purchasing (buyer) or production control (specialized expeditors).
5. Measurement of purchasing performance concerns itself with two broad classes, namely tangible (quantitative price performance) and intangible (managerial skills).

Answers to Civil Service Exam

1. A. Definitions:

1. Forward purchasing: buying in advance of actual requirements to take advantage of special prices, or to beat a price increase. May involve buying futures contracts.
2. Spot market: an open market where prices are determined by buyer and seller on a trading basis, as the cotton or copper market.
3. Negotiated bidding: bidding where vendor and buyer arrive at a price through negotiation over cost factors, instead of a fixed-quote basis. Useful for special or custom orders, and in the defense industries.
4. C.I.F.: "cost, insurance and freight," or the total cost of buying materials that are subsequently shipped by water to your port. Shipping and insurance costs are included in a "c.i.f." price; however, it may not include transportation from port to destination, unloading charges or drayage.
5. 2/10 n 30: a 2% cash discount is given if bill is paid within 10 days; the full invoice (Continued on page 23)

People whose business is shipping, packaging, and manufacturing are switching to Ludlow 2-Strip Case Sealing. They've discovered that Ludlow 2-Strip Case Sealing with Snaketape and Glaspun tape ends excess sealing costs, turtle-slow shipping operations, and carton failures enroute!

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Government Spurs Drive to Develop Gas Turbine Engine for Cars, Boats

Washington—The government has awarded Ford Motor Co. and Solar Aircraft Co. a multimillion dollar contract to develop a gas turbine for vehicle and marine uses.

The project calls for development of a turbine with a life cycle equal to or better than conventional reciprocating engines (with considerably less maintenance) at a competitive cost.

The contract was announced at the recent Gas Turbine Power Conference and Exhibit held here. One spokesman commented, "Whatever the target dates for production of vehicular turbines are now, this new contract should bring them closer."

Gas turbines for cars and trucks took the spotlight at the conference, which was jointly sponsored by The American Society of Mechanical Engineers and the Dept. of Defense. Prominently displayed were three turbine engines specifically intended for vehicles. These power plants, however, are costly prototypes in varying stages of development.

In addition to turbines specifically intended for vehicles, exhibitors also displayed models being developed jointly for vehicular and other industrial uses. These are expected to find their way into trucking applications and heavy-duty equipment uses, including off-the-road machinery. Models included:

• **General Motors Corp's GMT-305** (Allison Div.). This heavy-duty gas turbine delivers 225 hp. and weighs 650 lb. The Army Engineer and Development Laboratories are conducting extensive tests with the regenerative turbine. An outdoor exhibit at the Pentagon in conjunction with the Conference demonstrated the engine in a four-wheel, rubber-tire Caterpillar DW-15 tractor.

• **Chrysler Corp.'s 140-hp. turbine** has been under evaluation in passenger cars but is being tested also in a 2½-ton truck under an Army contract. Its 450-lb. weight is about half of that of a conventional internal combustion V-8 engine.

• **Ford Motor Co.'s 704 engine** is being developed for heavy-duty trucking and off-the-road equipment. It weighs about 650 lb. and delivers 300 hp.

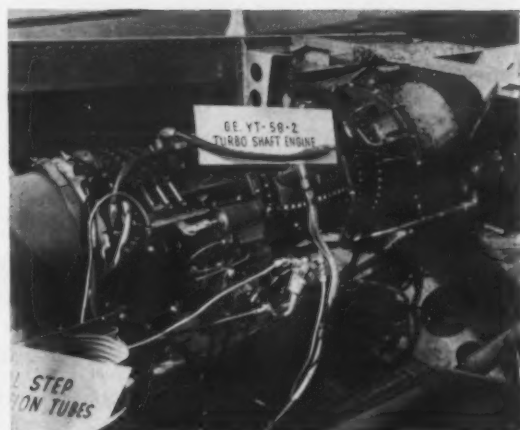
• **Williams Research Corp.** is working on a 75-hp. turbine with

the Army. This is presently in evaluation as an engine for the military ¼-ton truck.

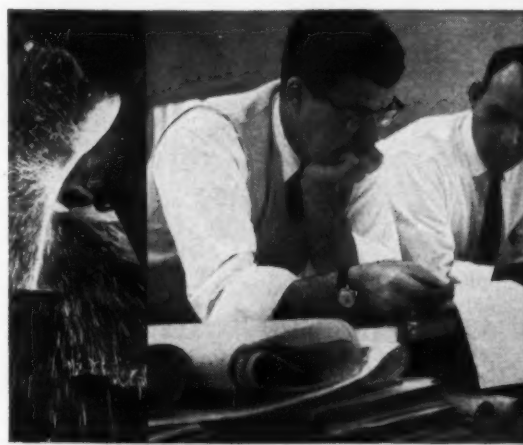
• **A 400-hp. gas turbine** developed by the Waukesha Motor Co. with the Williams Research Corp. It is a free shaft engine which provides the high torque characteristics needed for truck and off-the-road vehicle applications. The company expects to boost the engine rating to 600 hp., while retaining its present size. Weight is about 620 lb.



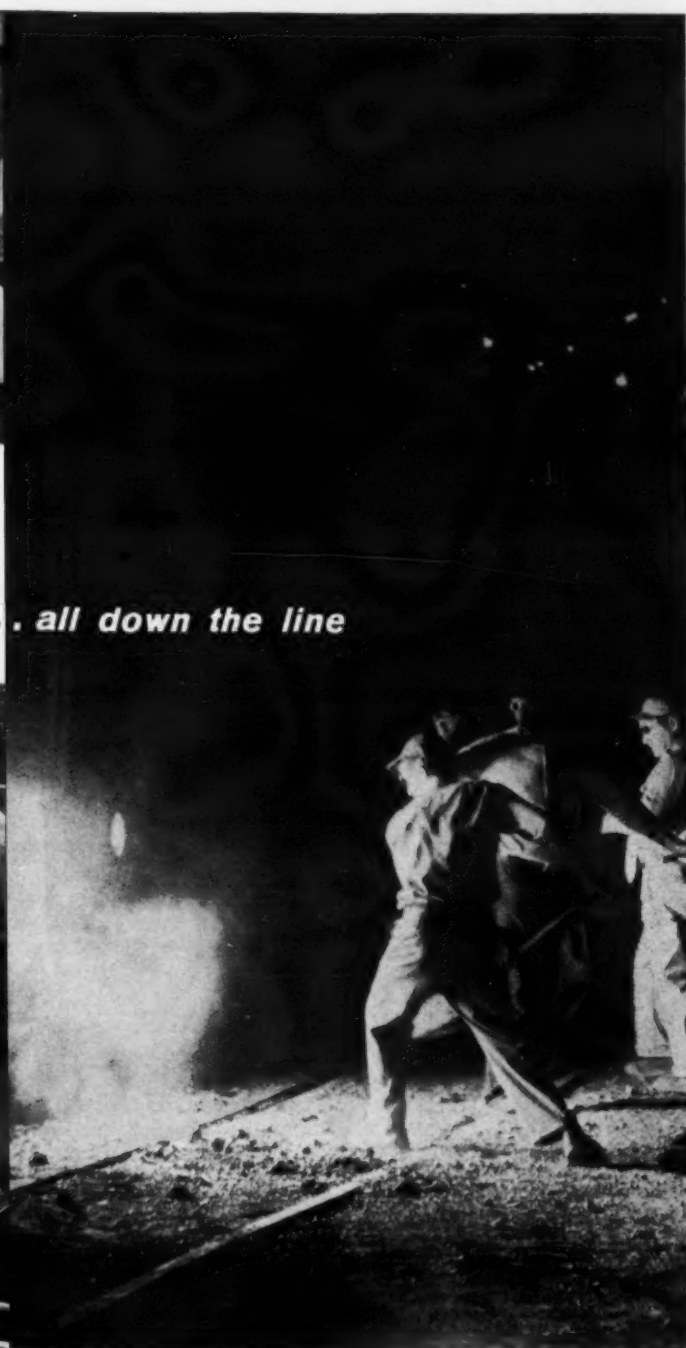
ON LAND: Turbine applications being tested include Chrysler's car and truck engine (above) and . . .



ON SEA: Hydrofoil engine under development by General Electric for powering water-skimming craft.



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Answers

(Contd from page 22)

price is due and payable from the 11th day through the 30th day. After the 30th day, the bill is considered overdue.

- B. 1. The basing point system for pricing gives an f.o.b. price at a point which may not be the actual location of manufacture. Thus the buyer would pay freight charges from the "base point" instead of the mill. Conversely, mill-base pricing is a price given at the mill, and any freight paid from there is real, and not "phantom freight."
2. Selection of the f.o.b. point may affect the amount of transportation charges, the time of delivery, ease of expediting shipments, and under some circumstances, the sales and property taxes.

Question 2 through 4 are essay questions designed to tap the buyer's experience, and there are no unique correct answers.

Here's your weekly guide to . . .



Office Chair

Has Contoured Back

Office chair line includes a side chair, stenographer's swivel chair, guest arm chair, and swivel arm chair. Contoured backs and foam cushioned seats are covered with a grey vinyl with black plastic welting. Metal parts are grey enamel. Cushioned seats extend beyond frame edge for added comfort.

Price: \$23.95 (side chair) to \$52.95 (shown). **Delivery:** immediate.

Lyon Metal Products, Inc., 2 Plant Ave., Aurora, Ill. (PW, 3/27/61)



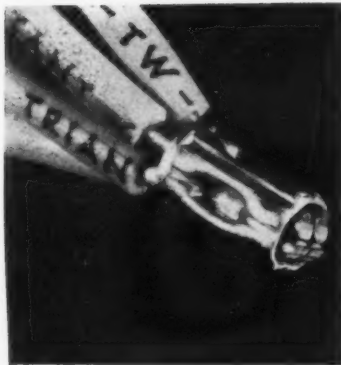
Gantry

Has Telescoping Legs

Gantry's telescoping legs permit up to 6 ft. of height adjustment. Five models with I-beams of steel or aluminum alloy have spans to 30 ft., heights to 17 ft., and capacities to 4 tons. The entire unit is weatherproofed and folds compactly for hauling or storage.

Price: \$469 to \$856. **Delivery:** 10 to 14 days.

B. E. Wallace Products Corp., Exton, Pa. (PW, 3/27/61)



Splice Cap

Eliminates Wire Twisting

Splice cap with fluted design to add to its holding power eliminates the need for twisting wires. When the cap is crimped, wires are flattened and deformed lengthwise to provide wire-to-wire contact. The cap handles from two #18's through four #12's. The flutes also strengthen the cap and help to position it in the crimping tool.

Price: \$1.25/100. **Delivery:** immediate.

Buchanan Electrical Products Corp., Hillside, N. J. (PW, 3/27/61)



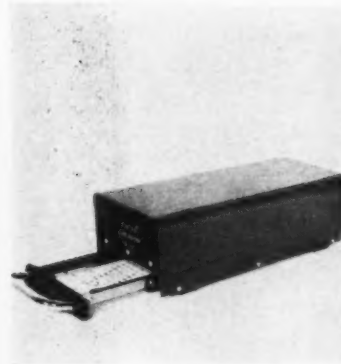
Platform Scale

Resists Corrosion

Bench-type scale, in capacities of 50 lb., 100 lb., and 200 lb., has corrosion-resistant stainless steel 13 x 17-in. platform. A 15-in. dia. dial is gasketed to seal out moisture and fumes, and springs are temperature-compensated over a range from 0 to 150 F.

Price: \$495. **Delivery:** approx. 6 to 8 wk.

John Chatillon & Sons, 85 Cliff St., New York 38, N. Y. (PW, 3/27/61)



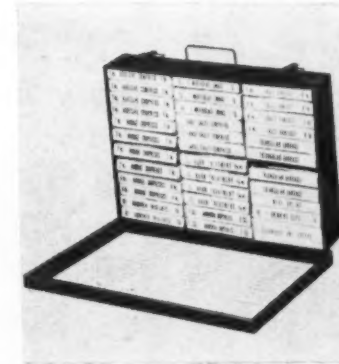
Card Reader

Holds Data Available

Unit for use with control and data gathering systems (and other digital instrumentation) reads a punched card when tray is inserted and has the data available as contact closure outputs until the card is released. One model reads 30 columns of a standard IBM card; another, an entire 80-column card.

Price: \$695 and \$895. **Delivery:** 60 days.

Datex Corp., 1307 S. Myrtle Ave., Monrovia, Calif. (PW, 3/27/61)



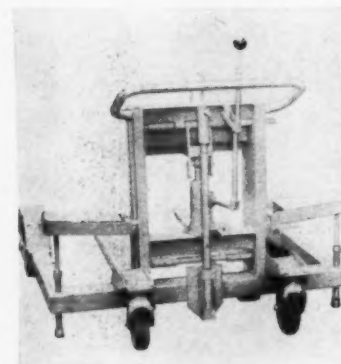
First Aid Kit

Protects Contents

Kit has a snugly fitting lid to keep out dirt, and a special rubber gasket to protect against water and moisture. Four sizes are available with from 10 to 36 items including compresses, bandages, iodine swabs, burn salves, inhalants, and tourniquets.

Price: \$8.63 to \$24.52. **Delivery:** immediate.

American Optical Co., Southbridge, Mass. (PW, 3/27/61)



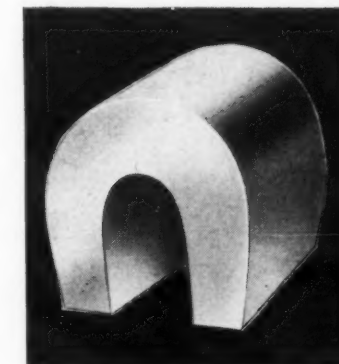
Warehousing Truck

Functions as Fork Lift

Truck for warehousing, order filling, and distribution operations, with a 3-ton capacity hydraulic lift, reduces the need for fork lift trucks. Over-all truck width is 50 1/4 in. and over-all length is 68 1/4 in. Options include choice of running gears.

Price: \$295 to \$395. **Delivery:** 3 wk.

Nutting Truck & Caster Co., 1201 W. Division St., Faribault, Minn. (PW, 3/27/61)



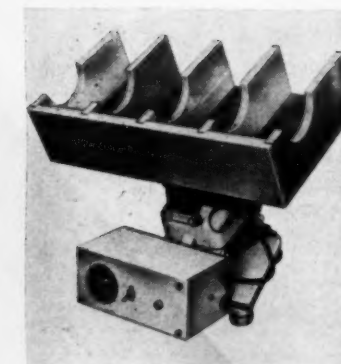
Magnet

Lifts 125 Lb.

Five-pound magnet for laboratories, shops, and parts rooms will lift over 125 lb. Uses include retrieving submerged parts, transfer of parts, and location of underground or wall-concealed pipes and metal fixtures. Actual strength rating is 2,000 Gauss.

Price: \$9.95. **Delivery:** immediate.

Edmund Scientific Co., Barrington, N. J. (PW, 3/27/61)



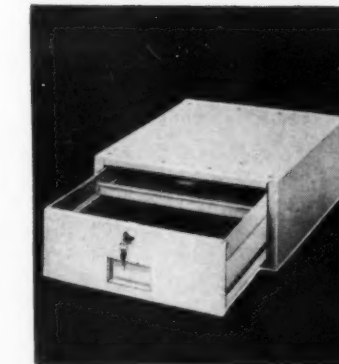
Jogger

Aligns Business Forms

Business form jogger vibrates forms into proper alignment for further processing. Handles checks, punch cards, credit cards, time cards, and premium notices. Models are available with two, three, or four bins.

Price: \$217.50. **Delivery:** approx. 1 wk.

Syntron Co., 936 Lexington Ave., Homer City, Pa. (PW, 3/27/61)



Bench Drawer

Has Own Case

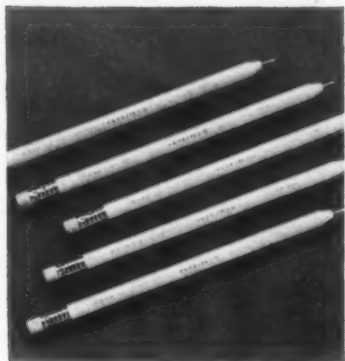
Steel drawer slides inside own case, which permits easy mounting below others or under a bench. The case is strong enough to support a bench-top. Drawers, 20 in. long, 5 in. high, are available in 14- or 20-in. widths. A sliding tray holds small parts separate.

Price: \$11.15 and \$12.83. **Delivery:** immediate.

Bay Products, Inc., 1835 W. Cambria St., Philadelphia 22, Pa. (PW, 3/27/61)

New Products

Another PURCHASING WEEK service: Price and delivery data with each product description.



Steno Pen

Has Fine Point

Ball point pen, designed particularly for stenographers and secretaries, has a fine point especially adapted for dictation. The pen has a pink plastic barrel and is available only with blue ink. A one-piece stock box contains one dozen pens.

Price: 39¢ each. Delivery: immediate.

Eberhard Faber Pen & Pencil Co., Crestwood, Wilkes-Barre, Pa. (PW, 3/27/61)



Stainless Steel Foil

Eliminates Fastening Problem

Adhesive-backed stainless steel foil can be used where fastening of strips or panels is a problem, as on glass. Initial contact adhesion to almost any smooth, clean, dry surface is from 2 lb. to 4 lb. per sq. in. Strength buildup over three days is 60% to 75%.

Price: 52¢/sq. ft. to 80¢/sq. ft. Delivery: 10 days.

Fasson Products, 250 Chester St., Painesville, Ohio (PW, 3/27/61)



Balance Reel

Holds 30-Lb. Load

Balance reel, for suspending portable and electric tools on production and assembly lines, holds up to 30 lb. The main spring is contained in its own cartridge for safe handling and is lifetime lubricated. An automatic device provides positive safety locking to protect against spring failure.

Price: approx. \$100. Delivery: immediate.

Aero-Motive Mfg. Co., 1803 Alcott St., Kalamazoo, Mich. (PW, 3/27/61)



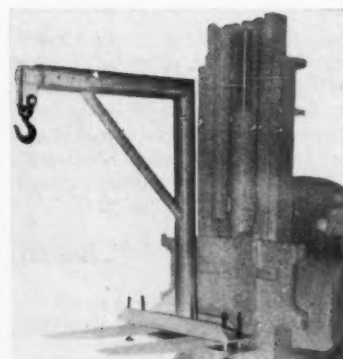
Gasket Compound

Withstands -65 F to +400 F

Compound comes in two varieties: softset for connections periodically disassembled, and hard-set for permanent installations. Both types are available in 1½-, 3-, and 11-oz. tubes. They can be used over a range of -65 F to +400 F and to 5,000 psi.

Price: 27¢/tube to 87¢/tube (minimum order, \$10). Delivery: immediate.

Crane Packing Co., Ltd., Dept. PW-7, Box 134, Station C, Hamilton, Ont. (PW, 3/27/61)



Crane Hook

Attaches to Fork Life Trucks

Crane hook lifting attachment fits standard fork truck. The boom extends from a 36-in. length, with a lifting capacity of 6,000 lb., to 60 in. with a 2,000-lb. capacity. The unit weighs 250 lb. and may be attached and detached by one man in seconds.

Price: \$149.50. Delivery: 7 days.

Pucel Enterprises, Inc., 3746 Kelley Ave., Cleveland 14, Ohio (PW, 3/27/61)

This Week's

Product Perspective

MARCH 27-APRIL 2

METAL USERS can look for plentiful supplies at real prices at or not far from present levels over the next 10 years. Heightened competition among the metals themselves—and between metals and plastics—will keep the metals in line, according to Battelle Institute's assistant technical director, Richard J. Lund.

The metal industries must step up research efforts substantially if they are to hold or improve their position on the market place. These efforts will be aimed at searching for improvements needed to meet more exacting customer needs and then developing the special alloys or products needed to meet these requirements. Production methods also will come in for close scrutiny and research projects now in the works promise substantial reductions in future equipment costs.

"Almost any metal you can name is in abundant oversupply and hungry for new uses," Lund notes. Here's how he sizes up the prospect for each metal:

- **Iron and steel.** It's hard to visualize anything in the next decade that will cause any major change in availability and price relations. Known ore reserves are more than ample for any foreseeable increase in demand. Competition will require every possible effort to hold prices at or below present comparative levels. Revolutionary technical developments will be applied to substantial segments of existing capacity as well as to construction of new facilities, which will cost much less per ton of output than equipment added in the '50's.

- **Aluminum.** Demand is expected to double in the next 10 years, but existing resources are ample to meet requirements. Capital cost of the huge anticipated capacity expansion will be a heavy burden, but new reduction methods scheduled for large pilot plant tests in Europe and Canada might lower capital as well as production costs. (Unlike steel, these process changes can't be applied to existing facilities.) Rapidly expanding capacity abroad, however, may cut exports and intensify competition with other materials here.

- **Zinc.** Known ore reserves—even in the Western Hemisphere—are ample to meet modest expansion anticipated. U. S. consumption of slab zinc has stayed about level in last decade while population has gone up 20%—leading to a decline in per capita consumption. Research efforts may boost usage, but it is doubtful if growth will keep pace with the population. Relatively stable prices will be required to hold markets.

- **Lead.** Outlook is similar to zinc but even weaker. Consumption here has stayed level for a decade as per capita usage has dropped. Known ore reserves in North America alone are ample to meet future needs. Lead research programs aren't expected to uncover any sizeable markets.

- **Copper.** Competition from other materials—notably aluminum and plastics—has led to decline in per capita consumption. Discovery of new deposits in Australia and Peru will assure users of ample supplies at prices close to current levels as long as supplies from traditional sources in Africa and South America remain available. Strikes may be expected to block important sources periodically, but the industry will try to maintain a more stable price pattern during such times.

- **Magnesium.** The coming decade may well see important expanding usage of this metal. Chances of any substantial comparative price cut are slim, but new producers will assure additional supply sources and contribute to more effective research and promotion of this somewhat neglected metal.

- **Molybdenum.** U. S. supplies are more than ample to meet any foreseeable demand. The metal is abundantly available for expanded or new uses at prices a little above going levels. Growing usage for high temperature and lubrication is of relatively minor importance.

- **Nickel.** Continued strength of European markets coupled with resumption of U. S. economic growth could pinch the nickel supply picture again. Canadian ore reserves are ample to meet growth but new production capacity may have to be added. Competition in stainless steel market (prime nickel user), should hold prices pretty well in line with present levels.

- **Chromium.** Supply ample for long-range future as long as sources from Southern Africa remain available. While output from other known sources could be stepped up in event of stoppages from Africa, chrome prices probably would rise, encouraging substitution from anodized aluminum and other materials.

- **Manganese.** Little change in price or availability in decade ahead.



Hand Magnet

Works on Plunger

Magnetic unit handles small or large parts and releases them instantly with a squeeze on a plunger-like handle. One model holds up to 3 lb. of loose parts, or larger pieces up to 30 lb. A heavy-duty unit has 5-lb. and 50-lb. capacities. For sheet operation, the two units handle maximum thicknesses of 11 and 16 gage.

Price: \$30 and \$35. Delivery: 1 wk.
Jess Corp., 15770 Telegraph Rd., Detroit 39, Mich. (PW, 3/27/61)



Test Set

Handles High Voltages

High voltage set tests dielectric materials and all kinds of insulated electrical apparatus. An a.c. line comes in 2 kva. (20-, 35-, and 50-kv. ratings) and at 5 kva., 10 kva., and 25 kva. (50- to 150-kv. ratings). D.c. sets come at 5 ma. and 10 ma. in ratings from 30 kv. to 150 kv.

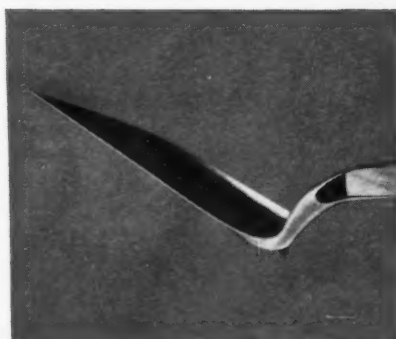
Price: \$1,250 to \$5,500 (d.c.) and \$1,250 to \$8,500. Delivery: immediate.

General Electric Co., Holyoke, Mass. (PW, 3/27/61)



(if you want to get the best value in shovels)

True Temper's taper-forging makes the big difference. It scientifically distributes the metal to give each shovel a unique combination of strength and light weight. A worker can do more shoveling in less time. And the shovel lasts longer.



Cutaway of taper-forged BANTAM shovel blade shows solid-steel shank, extra metal at wear points (shoulders and center), and thinner edges for easier penetration.



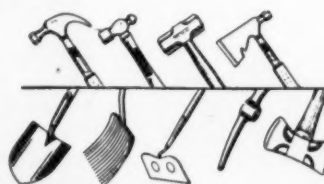
Taper-forged finish makes blade free-scouring. Helps the shovel slide into the load faster and more easily. And helps it shed the load more quickly and cleanly.



Taper-forging gives the blade excellent down-the-center balance and eliminates dead weight. Lets a man shovel more payload per day with a lot less effort.

To save money on shovels (and on shoveling), choose True Temper BANTAM for general industrial use. Other taper-forged solid shank models: FOX contractors' weight, BULLDOG for heaviest jobs. Tube-shank DYNALITE for lighter service. Call your True Temper industrial distributor.

All True Temper tools are designed to do more, so workers can get more done. Send for free catalog, "Tools for Industry." True Temper, 1623 Euclid Ave., Cleveland 15, O.



TRUE TEMPER
THE RIGHT TOOL FOR THE RIGHT JOB



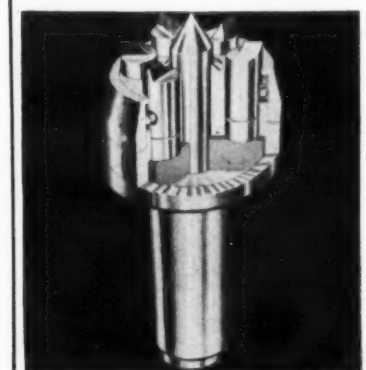
Molding Machine

Gives 400 Shots/Hr.

Injection machine with a 1/3-oz. shot capacity develops 7,500-psi. material pressure using 100-psi. shop air. It uses a 110-v. a.c. heating source and operates semi-automatically or automatically at over 400 shots/hr. It produces a wide variety of parts such as knobs, coil forms, pins, dials, gears, etc.

Price: \$2,578. Delivery: 30 days.

Arburg of America, 1225 E. Wakeham Ave., Santa Ana, Calif. (PW, 3/27/61)



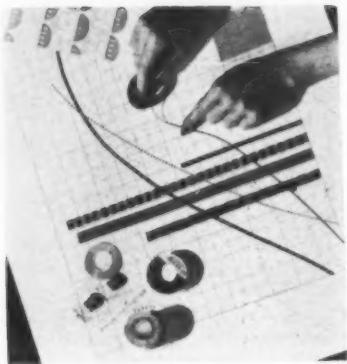
Driving Center

Reduces Set-Up Time

Driving center grips workpiece with driving pins rather than chucks, clamps, or dogs, and may be loaded or unloaded without stopping the machine. A deformable plastic material acts as hydraulic medium to give all pins an equal bite. Eight body types have interchangeable pin styles for small, medium, or large work dia. Head sizes are available in Morse tapers #2 to #6.

Price: \$95 to \$300. Delivery: immediate.

Power Grip, Inc., Rockfall, Conn. (PW, 3/27/61)



Transparent Tape

Comes in 20 Colors

Transparent, adhesive-backed tape for graphs and other art work comes in 20 solid colors and 10 patterns. Ten standard widths range from 1/32 in. to 1 in. The tape surface is nonreflecting and may be written on for chart identification.

Price: 70¢ to \$2.25 (depending on width). **Delivery:** immediate.

ACS Tapes, Inc., 217 California St., Newton 58, Mass. (PW, 3/27/61)



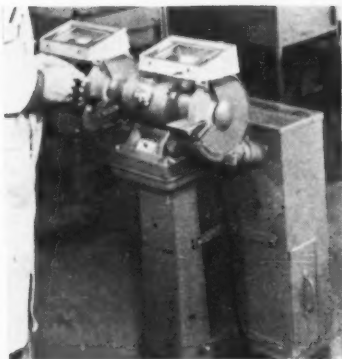
Emergency Light

Has Built-In Voltmeter

Light plugs into any a.c. outlet to provide automatic emergency lighting when regular system fails. A built-in voltmeter and contact switch tests the 7½-v. dry battery which supplies power. The unit has two 5-in. lampheads, plus mounting brackets to simplify installation.

Price: \$29.95 (without battery). **Delivery:** approx. 1 wk.

U-C-Lite Mfg. Co., 1050 W. Hubbard St., Chicago 22, Ill. (PW, 3/27/61)



Grinder

Handles Odd-Shaped Stock

Seven-in., ½-hp. grinder handles odd-shaped and long stock. Oval end bell hubs provide top-to-bottom thickness for rigidity and front-to-back thinness for easy manipulation of work. Bench and pedestal models are available for 1,725 rpm. or 3,450 rpm. Safety shields for eye protection are of shatterproof glass.

Price: \$137.75 (bench) and \$175.30. **Delivery:** immediate.

Rockwell Mfg. Co., Delta Power Tool Div., 485 N. Lexington Ave., Pittsburgh 8, Pa. (PW, 3/27/61)



Rivet Kit

Provides 10 Rivet Sizes

Kit for use with plastic products contains 200 rivets for each of 10 sizes. The hollow rivets are inserted and set from the same side of the work. Retracting jaws of the setting tool pull the mandrel head into the rivet until the mandrel breaks under pressure.

Price: \$57.50. **Delivery:** immediate.

United Shoe Machinery Corp., Shelton Div., Shelton, Conn. (PW, 3/27/61)



Now you will have written assurance of quality that adheres to your specifications when you buy from Quaker State. During the melting and through every step in processing, QSM metallurgists and technicians test and inspect your order to be certain that it is filled according to your specifications and will meet our exacting standards of quality.

TESTED FOR POROSITY—One of the specific tests metal must meet, the test for porosity is made before a rolling ingot is cast. It assures you of aluminum that is free of gas pockets that would adversely affect the working qualities of the finished material.



QUAKER STATE METALS COMPANY

Lancaster, Pennsylvania

A DIVISION OF HOWE SOUND COMPANY

Mill Producers of Aluminum Sheet, Coil, Tubing and Extrusions

Dissolvable Paper Towel Developed To Prevent Clogged Plumbing Lines

Berlin, N. H.—The Towel & Tissue Div. of Brown Co. has developed a paper hand towel that will dissolve in turbulent water, preventing clogged plumbing lines.

The company designed the towel with what it describes as a "timed wet strength"—it will not tear in normal use but will come apart in a few minutes when exposed to the normal turbulence of water in piping.

Brown introduced the special

line of multifold hand towels after a Cleveland distributor, the Gascon Paper Co. of Cleveland, Ohio, received a report from a local municipal sanitation department that "regular wet strength towels, inadvertently disposed of into the sewage system, remained intact even after passing through the sewage processing system."

The "timed wet strength" line being offered to cope with this problem is not intended as a replacement for wet strength towels.

Product News in Brief

Heat Generates Current

Elyria, Ohio—C. A. Olsen Mfg. Co. is developing a gas furnace that uses thermoelectric elements to generate electricity to drive the blower.

The generator, which converts the heat of the burning gas to electricity, gives reliability free from dependence on external electricity; reduced installation costs, since no electrical connections are required; and savings in electricity bills, Olsen said.

The device consists of four

trays of modules which form an integral part of the combustion chamber wall. Each contains 47 thermoelectric couples made of two metals. When one of the metals is heated, raising the temperature above the other, an electric current is generated in the junction.

Olsen Co. is in the final stages of development with a home furnace with a heating capacity of 80,000 Btu. In recent tests, the thermoelectric generator produced 130 w. at about 9 v.



THERMOELECTRIC GENERATOR
converts heat to electricity.



**your product's
reputation and sales...
can go down hill fast**

...if nuts keep coming loose

Suppose you were your own customer, and bought the product *you* make. You'd expect it to stand up to the job, whether it was a racing cart, a heavy-duty crawler, or a crusher. You'd want it to endure the bumps and thumps and constant vibration of rugged use without coming unstuck at the bolts. If a nut came loose and made you lose time or production, you'd certainly think twice about buying that product again.

This is precisely why so many of America's leading manufacturers have guaranteed the reliability of critical bolted connections on their products with Elastic Stop® nuts.

They know that a product's reputation for dependability is built in the field and they know that reorders are written in customers' maintenance records. They've verified through field experience that in the long run

Elastic Stop nuts pay their own way because the exclusive nylon locking inserts keep them from working loose... even under the most punishing conditions of shock, impact or vibration! Elastic Stop nuts are the equivalent of "free" insurance against fastener failure for *their* product!

Whether your product sells for three dollars or for thousands, we think you'll be interested in a copy of the hex nut catalog No. 706. It details the regular, thin, heavy and light hex types in USS and SAE thread series and various materials and finishes; plus many dimensional "specials".

ESNA's complete line may change many of *your* "special" requirements into standard parts. Write Dept. S52-319, Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.



for the ring **O** of reliability

ELASTIC STOP NUT CORPORATION OF AMERICA

Special Trucks for Hire

Chicago — Wheels, Inc., has introduced a new truck leasing plan for users requiring special bodies and chassis. Contracts will run for from four to eight years, depending on the depreciable life of the trucks.

The lease, to be based on special fleet discount prices where available, will not cover maintenance, repair, or garage service. At its termination, Wheels, Inc., will sell the used equipment and proceeds will go to the lessee.

To qualify for a Special-Body Truck Lease, President Armund J. Schoen said, "A company must have a net worth of \$1-million and a record of profitable operations." Delivery of special-body trucks will be to points specified by the user.

Alcoa Ships Coated Sheets

Pittsburgh — Aluminum Co. of America will start to ship aluminum sheets coated with a removable plastic that protects the metal during customer handling and fabricating. The coated sheets will sell for a slight premium.

The film, which is transparent, does not leave a residue or otherwise affect the metal, nor does it have to be removed when the sheet is inspected. Its high degree of plasticity and toughness permits corrugating and drawing without marring of the metal surface. After fabrication, it can be removed easily by hand or air blasting.

The protective vinyl is available on coiled sheet in thickness of from .016 in. to .051 in. and in widths up to 56 in. A number of sheet patterns and flat sheet also may be ordered with the coating.

Chance Vought to Acquire Harbor Boat Building Co.

Dallas—Chance Vought Corp. will acquire Harbor Boat Building Co. and Harco Engineering Co. to extend the company's expanding activity in antisubmarine warfare, marine engineering, oceanography, ships' instrumentation, and other marine equipment.

In addition to shipbuilding, Harbor Boat manufactures lightweight fiber glass and steel shipping containers for several major aircraft companies. Harco Engineering works in the field of naval architecture, and marine, industrial and electrical engineering.

**Photoelectric Light Control****Switches Mechanically**

Unit's photoelectric control turns lighting on when natural light drops to from 2 fc. to 4 fc. A mechanical control turns lights off at any preset hour without waiting for dawn. The unit is available in single- and double-pole models which can be set to skip operation on a preselected day.

Price: \$39.95 (single pole), \$69.95 (double-pole without skip control), \$99.95 (double pole). **Delivery:** immediate to 2 wk.

Tork Time Controls, Inc., Mount Vernon, N. Y. (PW, 3/27/61)

**Floor Finish****Leaves Nonskid Coating**

Plastic floor finish combining polymers and vinyls leaves a nonskid surface that will not scuff or show foot marks. It may be used on linoleum, rubber, cork, asphalt tile, terrazo, magnesite, and sealed wood floors. The finish is washable and lasts from three to four times longer than wax finishes.

Price: \$3.90/gal. to \$4.35/gal. **Delivery:** 4 to 10 days.

Monroe Co., Inc., 10709 Quebec Ave., Cleveland 6, Ohio. (PW, 3/27/61)

**Crayon Stick****Indicates Temperatures**

Crayons to indicate 2,050 F, 2,150 F, 2,350 F, and 2,450 F increase the manufacturer's line to cover the 2,000-F to 2,500-F range in 50-deg. intervals. A crayon stroking a workpiece being heated leaves a dry mark until the temperature rating is reached when the stroke leaves a liquid smear. The full crayon line covers 100 F to 2,500 F.

Price: \$2 each. **Delivery:** immediate.

Tempil Corp., 132 W. 22nd St., New York 11, N. Y. (PW, 3/27/61)

Purchasing Week Definition**Polyethylene Types**

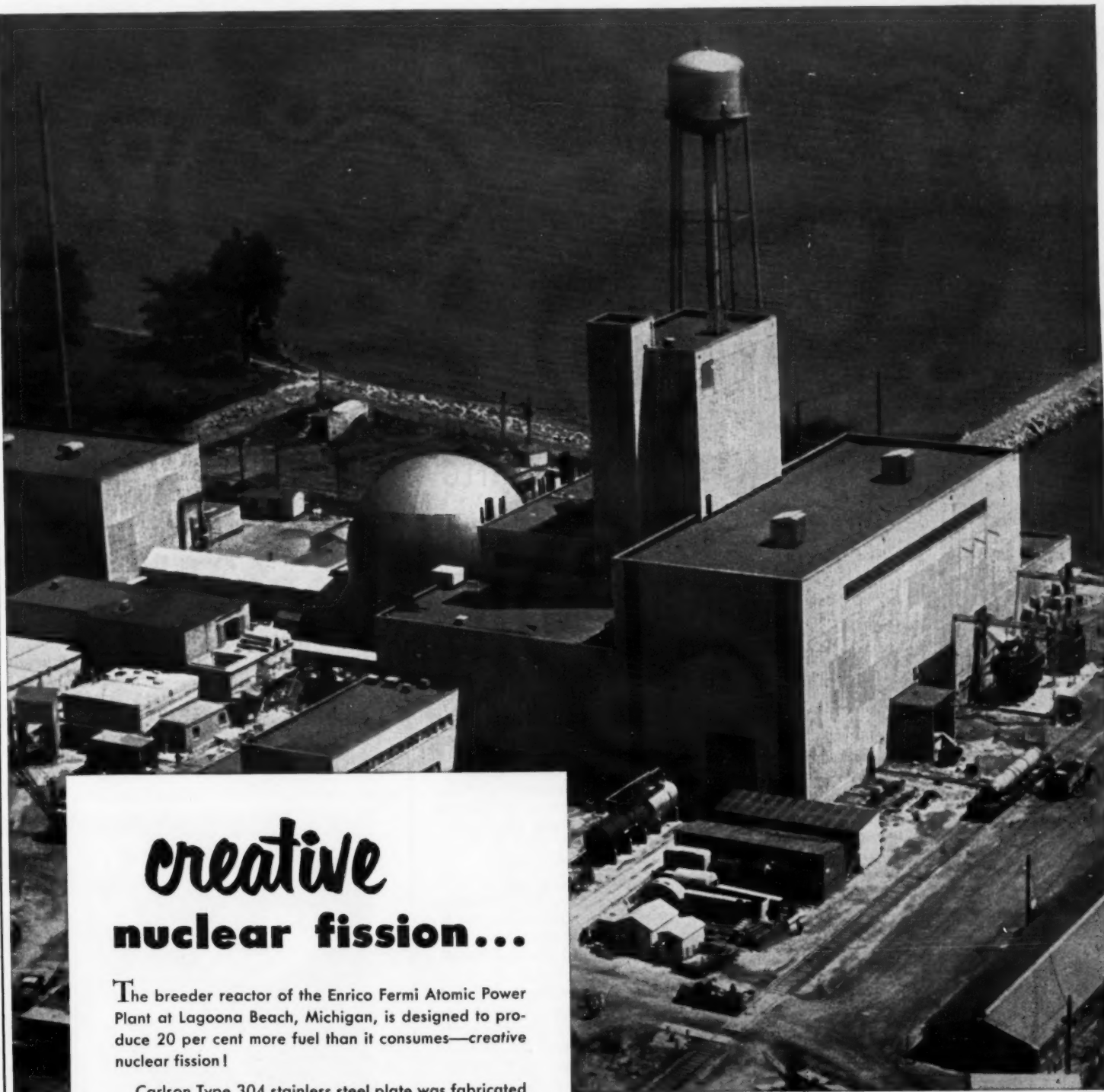
Three types of polyethylene are currently in commercial production. These are most meaningfully differentiated in terms of density.

Low Density—0.910 to 0.925 specific gravity. This is sometimes referred to as conventional polyethylene since it was the first polyethylene polymer produced. It is known also as branched polyethylene, high-pressure polyethylene, etc. Low density polyethylene is synthesized at elevated temperature and very high operating pressures (15,000 psi. to 30,000 psi.).

Medium Density—0.926 to 0.940

specific gravity. This can be manufactured in the same type of equipment as low-density polyethylene with the density being controlled by proper selection of catalysts, chain transfer agents, and diluents, or it can be produced by blending low- and high-density resins in proper proportion.

High Density—0.941 specific gravity and up. These polyethylenes are also called linear, low-pressure etc. They are stiff and made at low synthesizing pressures and temperatures using coordination catalysts. (3/27/61)



creative nuclear fission...

The breeder reactor of the Enrico Fermi Atomic Power Plant at Lagoona Beach, Michigan, is designed to produce 20 per cent more fuel than it consumes—creative nuclear fission!

Carlson Type 304 stainless steel plate was fabricated into the reactor vessel by Combustion Engineering, Inc. This plate must withstand the high temperatures and severely corrosive conditions associated with nuclear service.

Carlson specialists, working exclusively with stainless steel, maintain the precise quality standards essential in meeting critical service requirements. Whether you build nuclear power plants, missiles, or corrosion-resistant process equipment, you will find at Carlson a production and on-time delivery service you can trust. We will be glad to work with you on your projects. Write, wire or phone for detailed information.



If you would like a copy of our new booklet, "Producing Stainless Steels . . . Exclusively," please let us know.

Enrico Fermi Atomic Power Plant, Lagoona Beach, Michigan. Reactor section built, owned, and will be operated by Power Reactor Development Company. Conceptual design by Atomic Power Development Associates, Inc. Detail design and construction of reactor vessel by Combustion Engineering, Inc. The turbine-generating plant is built, owned, and will be operated by The Detroit Edison Company.

PHOTO COURTESY OF POWER REACTOR DEVELOPMENT COMPANY

G.O. CARLSON Inc.

Producers of Stainless Steel

144 Marshallton Road
THORNDALE, PENNSYLVANIA
District Sales Offices in Principal Cities



Plates • Plate Products • Heads • Rings • Circles • Flanges • Forgings • Bars and Sheets (No. 1 Finish)

PROFESSIONAL PERSPECTIVE



CONSULTANT JOSEPH W. NICHOLSON

Discusses the Professional Qualifications

Of the Government Purchasing Agent

WHAT sort of person is eligible to become a governmental purchasing agent? Does this position require a special breed of professional career official? Among the usual requirements of experience in the purchasing field—integrity, personality and executive ability—there might be one such as this: "He shall have an intimate working knowledge of at least 60,000 different commodities including virtually every kind manufactured, grown, mined, synthesized, or assembled."

Another requirement might be: "He shall have specialized knowledge concerning pharmaceuticals, chemistry, civil or mechanical engineering, hydraulics, electrical engineering, economics, testing, acceptance and rejection procedures, accounting and contract law."

"National Defense must not wait

so we use Delta Air Freight"



Convair, Ft. Worth, Texas, uses Delta Air Freight to help meet production deadlines and testing schedules for the B-58, America's first supersonic bomber.

"Every minute test planes are grounded, our national defense program is affected," says Sam Keith, Traffic Manager. "Delta Air Freight plays a vital part in the B-58 production and testing program, by reducing the transit time for high-priority material between our Ft. Worth plant and distant test sites."

Profit from Delta's BIG PLUS



Delta operates all-cargo flights and in addition carries freight on every passenger flight, including Jets. All-Cargo flights serve Atlanta • Chicago • Charlotte • Dallas • Houston • Memphis • Miami • New York • New Orleans • Orlando • Philadelphia.



GENERAL OFFICES: ATLANTA AIRPORT, ATLANTA, GA.



"Special Charts are a GC specialty"

"Several of our processes call for recording charts of special design. I've found that GC tops the field on these just as on standard items."

Do your technicians need specially-designed recording charts for particular, individual applications? GC has the diversified skills necessary to design custom charts expertly, produce them accurately and economically, and deliver them in the shortest time.

Yes, special charts are a GC specialty. And, for your ordinary stock chart requirements, you'll find more than 5,000 users to vouch for GC's extraordinary service and economy.

GC maintains a catalog selection of over 15,000 different types of circular, strip and rectangular recording charts. You get fast shipments—save time and clerical work by dealing with one supplier instead of many—and cut costs further because of the economies of GC's large quantity production.

Write for the complete GC Stock List. Name specific instruments and we'll include samples for your technicians to test in use.



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A practical working knowledge of these requirements cannot be obtained from books and lectures alone. It is obvious that actual practical training and experience in a responsible governmental purchasing position is needed. This would require years of contacts with operating departments.

How, then, could one qualify for such a position? Here are some ways:

- Obtain at least five years of experience in a key position in the purchasing department of a large manufacturer.
- Obtain a degree or certificate in one of the many accredited purchasing courses being conducted in universities and colleges. There are many day and evening courses.
- Take courses in mechanical drawing, accounting, law of contracts, public administration, mathematics, pharmacy, chemistry, electrical, hydraulic and mechanical engineering.

The governmental purchasing agent is called upon to purchase, among other things: fire apparatus, automobiles, trucks, tractors, power shovels, snow-blowers, radio systems, drugs and chemicals, clothing and shoes (including ladies' nightgowns and babies' diapers), fuel, fertilizer, trees and shrubs, water and sewer pipe, drain tile, hose of various kinds (fire, water, etc.), water pumps, fire and river boats, books and periodicals, glass eyes, alcohol and narcotics, engineering equipment and supplies, clinic and hospital equipment and supplies (including X-rays), office furniture, street repair and lighting equipment, maintenance supplies, laboratory equipment and supplies, including guinea pigs.

He is also required to maintain stocks of food and other consumable and maintenance supplies in warehouses and store-rooms. This also necessitates a working knowledge of inventory control. In letting contracts for large sums covering items such as chemicals, machinery, road repair materials (sand, stone, asphalt, cement), he must execute formal contracts with his principals, contractors and sureties.

Jobs Once Filled by Patronage

A quarter of a century ago, successful acquisition of a governmental purchasing position quite often depended not so much upon **what** the candidate knew, but rather upon **whom** he knew and supported politically. This was because civil service requirements for this public office frequently were lacking entirely. Appointments to key positions were made from those "faithful and true" politicians who campaigned for the successful candidates. Consequently, little progress in efficient purchasing was made, and there were many instances of political mishandling of public expenditures.

Fortunately, through the pioneering work of the Governmental Committee of the National Assn. of Purchasing Agents, the spotlight of publicity was turned upon these costly and wasteful practices. This resulted in the formation of many local committees of purchasing agents who concerned themselves with promoting legislation to eliminate the spoils system of hiring and firing and of the awarding of public purchase orders and contracts to "the faithful."

The late Dr. Russell Forbes, former secretary of Public Administration Service, was chiefly instrumental in bringing about reforms in this field. In fact he did such a fine job of revising and upgrading the purchasing law of New York City that former Mayor Fiorello La Guardia appointed him Commissioner of Purchase, a position he held with outstanding credit for several years. His monographs *Purchasing Laws for Cities, Counties and States* and *Centralized Purchasing, a Sentry at the Tax Exit Gate*, written for the use of the National Assn. of Purchasing Agents governmental committees and for local groups of tax-conscious citizens, are still in demand. Dr. Forbes also collaborated with me in producing a monograph titled *County Purchasing*, which includes a suggested law for centralized

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QUALITY GLOVES

CHARCO "NEO-SOL" ALL MILLED NEOPRENE RUBBER GLOVES

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county purchasing, together with recommended civil service requirements for public purchasing officers.

The National Institute of Governmental Purchasing, founded in September, 1944, in Milwaukee, Wis., and chartered by the state of Wisconsin, immediately undertook the in-service guidance and training of its members who represent cities, counties, states and other tax-supported public agencies. This is being accomplished through conferences, published information service, development of standards and specifications, and the exchange of purchasing data and ideas relating to governmental problems.

Plans are now in the making for the requirement of certain professional experience and proven ability in order to qualify for membership in the Institute. A certificate or diploma similar to that of a CPA may be developed to improve the professional status of the governmental purchasing agent.

The Assn. of State Purchasing Agents and many associations of governmental purchasing agents are also accomplishing professional progress.

Where does the top governmental buyer get his men? Frequently, by a civil service examination on a local, state, and even nationwide level.

On the other hand, many top positions have been filled by promotion within the department. Examples of this are Chicago; Milwaukee; Cincinnati, Ohio; Dane County, Wis., and the State of Wisconsin. "The changing of the guard" which formerly took place in many cities following the election of a new slate of opposing party members is fortunately a rare occurrence these days. Nowadays, only in instances of incompetence or dishonesty are changes made in personnel. This seldom is necessary, and is a tribute

to the fine character and leadership of our modern day public purchasing officials. A career in governmental purchasing is a most desirable and honorable profession. One can serve his fellow tax taxpayers in a manner which will guarantee more value for the tax dollar.

When seeking replacements for key governmental buying positions, public officials endeavor to obtain experience, honesty, intelligence, updated inquiring minds and perseverance among other desirable personal attributes. If this can be accomplished through promotional examinations, it is done in this manner. If not, the entire field of possible candidates is explored through civil service examinations.

To answer my question propounded at the outset of this column: No; a suitable candidate does not have to be a special breed of buyer. On the contrary, he may have had no experience as a governmental buyer, but he could be an experienced industrial buyer who has taken advantage of courses and lectures, has attended purchasing seminars and has shown himself capable of assimilating the knowledge necessary to intelligently purchase 60,000 different kinds of materials, supplies and equipment.

Editor's Note: While the material in Professional Perspective normally is an amplification of a recent PURCHASING WEEK headline, Consultant Nicholson has elected to make this departure in his column:

He will answer readers' question on the theory and practice of governmental purchasing. PURCHASING WEEK therefore invites such queries. They should be sent to Mr. Nicholson c/o PURCHASING WEEK, 330 W. 42nd St., New York 36, N. Y.

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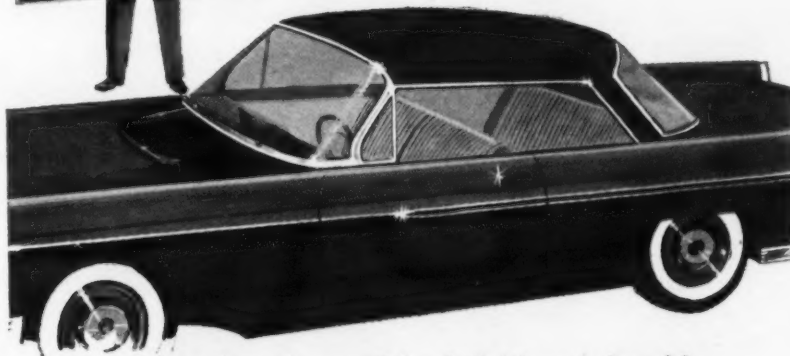
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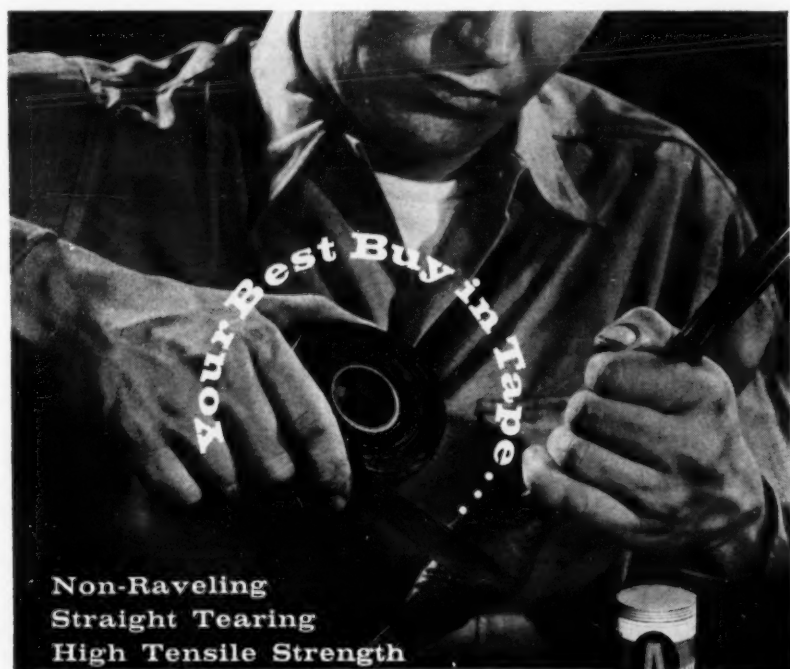
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This Week's

Foreign Perspective

MARCH 27-APRIL 2

Bonn—The Communist drive to boost sales to the West by attracting buyers to this year's Leipzig Fair fell far short of its goal, according to American observers here. American P.A.'s kept a tight hold on their wallets, and buyers from other Western nations were almost as restrained in their purchases.

East Germany reported sales of \$850-million at the fair, of which \$200-million were purchased by countries on the other side of the Iron Curtain. But American businessmen who attended the fair say these figures include barter deals transacted with underdeveloped countries, as well as other sales and barter deals made outside the fair.

Chemicals, toys, and typewriters accounted for whatever moderate Western purchasing was done at the fair. The East Germans are said to have sold some chemicals to a West Berlin-based American agent for resale in the U.S. Key attraction: low price. In fact, East Germans are often charged with "dumping" chemicals on Free World markets. Toys from Czechoslovakia and Poland and typewriters from East Germany also attracted some buyers.

A drive to push East German and Czech machine tool sales at the fair apparently flopped. During the last year, Czechs have built machine tool exports into the world's third largest. Their stated objective: to overtake West Germany (in No. 2 position) next year and start crowding the United States for first place by 1970.

Weak sales by Western firms represented at the fair stemmed chiefly from the Communists' lack of hard currency. The five American steel fabricators who turned up at the fair (see Foreign Perspective, March 20, p. 12) had hoped to sell about 20,000

tons of specialty steel products, but it's reported they sold less than 8,000.

The revalued German mark has begun to affect prices of West German imports in the U.S. For example: Volkswagen of America increased prices \$30-40 last week, and Mercedes-Benz followed with a similar boost. However, auto industry observers feel it's the dealer rather than the buyer who will take it on the chin. Increased discounts, especially where stocks are high, probably will offset the boost.

Another immediate effect of the revaluation has been the demand by many foreign buyers that they be allowed to pay for their purchases in their own currency or in U.S. dollars. Importers of German textile products and yarns were threatened with order cancellation unless spinners and exporters in Germany footed the difference caused by the mark's upward revaluation.

Meanwhile, importers and distributors in the U.S. were trying to hold the line on prices. One company, Kramer-American Corp., Los Angeles, assured customers it would not raise prices of the German-made Kramer tractor "at least until the end of 1961."

London—Cement price fixing was declared in the public interest in England, according to a ruling by the Restrictive Practices Court, following a hearing into cement price pacts between 17 members of the Cement Makers Federation. The manufacturers contended their agreement ensured lower average prices for portland cement than buyers could get under a system of free competition. Net delivered price averaged \$14.98/ton in 1959.

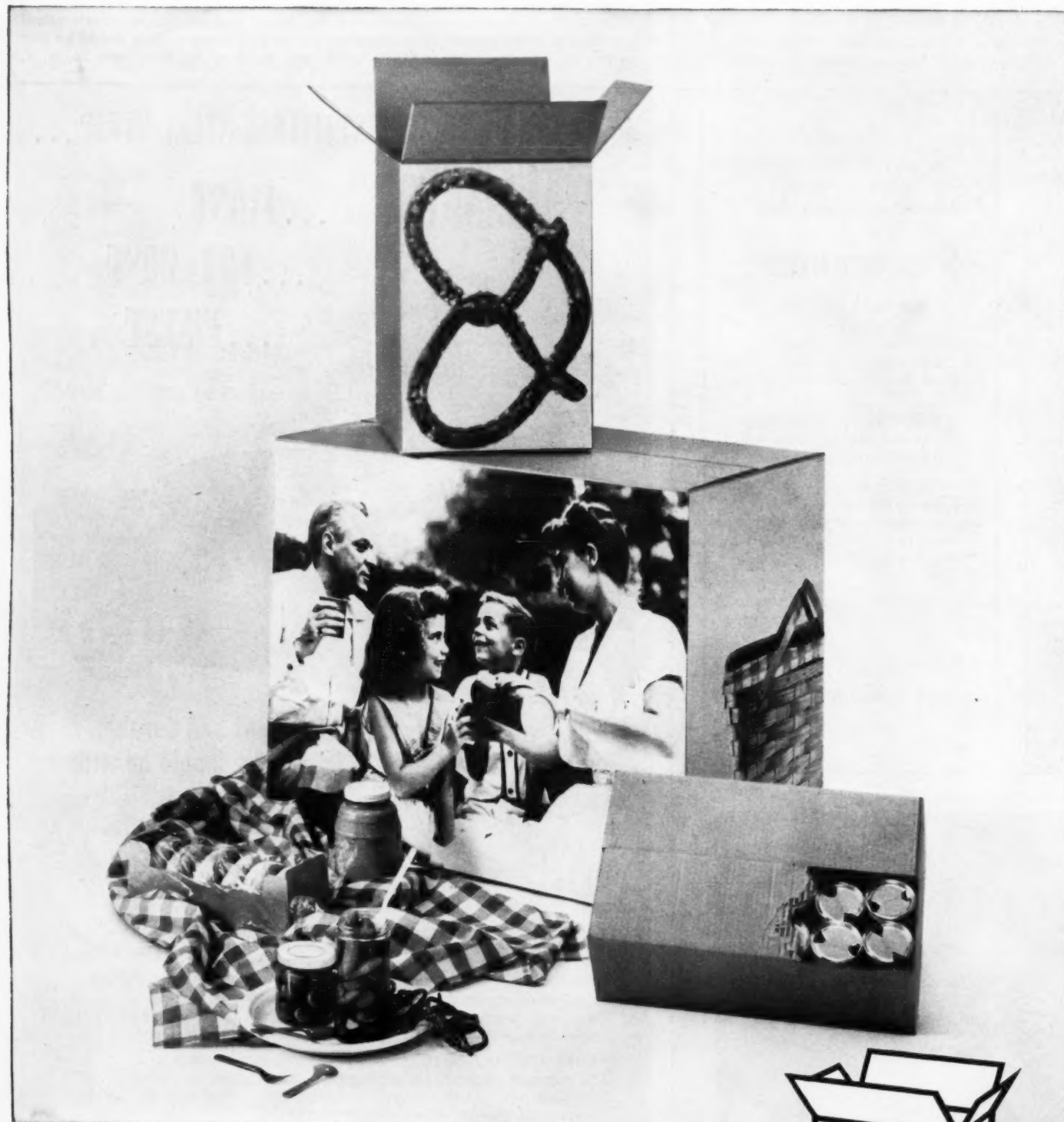
The manufacturers' agreement is the third to be adjudged by the court as not contrary to public interest. The other two price-fixing pacts concerned water tube boilers and black nuts and bolts.

Judgments on two other cases whose hearing have been completed—the Transformer Manufacturers Assn. and the British Bottle Assn.—will be made this week.

London—A delegation of British shipowners will visit Washington shortly to voice the industry's mounting alarm over what it regards as unwarranted U.S. government interference in foreign shipping activities.

Latest dispute arose over the U.S. government's attack on the dual rate system, which gives a shipper signing a contract with one of several steamship conferences lower rates than nonsignatories. There is also considerable resentment here over the headway made by a "Ship-American" campaign in the U.S.

Both British and Japanese plastics makers evaluated their exports last week. Britain's 1960 exports of 162,500 long tons was nearly 11% higher than in 1959, compared to a 28% increase in 1959 over 1958. Japan's plastics exports rose from 39,689 tons in 1959 to 50,523 tons in 1960. It jumped almost twice that much the year before.



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No Future Inventory Scrambles, P.A.'s Vow

(Continued from page 1)
were to range up to 10%, three out of four P.A.'s say they would maintain the present inventory-sales ratio.

As the West Coast executive put it, "It's all a matter of dollars and cents. Today's high interest and other charges make inventory carrying charges extremely high. So why change—especially since most of our suppliers are willing to do the stocking."

• **Buying Volume**—There's noteworthy lack of zest in near-term buying plans, despite the double-barreled effect of seasonal spring pickup and improving business conditions.

Not even the fact that a substantial number of P.A.'s (43%) expect to step up buying in the next 60 to 90 days can overcome the feeling that buying is going to be restrained.

First of all, for those who plan increases, the average boost is relatively small—even smaller than the average reported early last year when the economy was just entering the recession.

Secondly, P.A.'s indicate they're going to be pretty selective about their increases. According to the survey, only a few product lines are expected to show substantial pickup in demand. These include: steel, nonferrous metals, packaging materials, fasteners, and chemicals.

Outside of these areas, little substantial pickup is expected. Thus, less than 10% of the P.A.'s queried indicated that they would boost buying in such key areas as: rubber goods, power and fuels, material handling equipment, metal working equipment, processing equipment, maintenance equipment and supplies, machine tools.

• **Inventory volume**—P.A.'s determination to hold the line also shows up in their projections of future inventory volume. Thus, about one out of every five respondents say that inventories on June 30 will be below current levels.

This, plus the fact that almost half of the P.A.'s say they anticipate no change, should blunt the affect of the remaining P.A.'s who will be increasing inventories in line with a pickup in production.

All in all, inventory analysts see nothing more than a \$100-million to \$200-million rise in hard goods production material stocks by midyear. That would mean a total inventory of \$8.1-billion to \$8.2-billion in this category—substantially below the \$8.7-billion mark of last June.

So far this cautious policy has been paying off handsomely. For the first time in recent history, P.A.'s have licked the problem

of soaring inventory-sales ratio during a recession.

In the 1957-58 recession, for example, the ratio of hard goods production material inventories to sales increased by more than 20%. The boost during the 1953-54 downturn was almost as large.

Compare these figures to the record of the past year—with its relatively stable ratio—and the advantages of today's better inventory control becomes immediately apparent. One thing seems

How P.A.'s Plan to Buy in Next 60 to 90 Days

Item	% Planning Increase
Steel products	28
Packaging materials	22
Fasteners	16
Basic chemicals	15
Nonferrous metals	13
Office supp. & eqpt.	10
Rubber goods	9
Maint. eqpt. & sup.	9
Lubricants & eqpt.	9
Plastics	9
Power & fuels	8
Controls & instr.	8
Machine tools	7
Electric motors	7
Mat. handl. eqpt.	7
Processing eqpt.	6
Electrical mach.	5
Power trans. eqpt.	4
Metalworking eqpt.	4

sure: The days of vast inventory accumulation are behind.

"I don't believe we will ever see big buildups again," says P. A. Leonard F. Loehr of Dresser Industries. "Industry and purchasing have had to do considerable thinking and planning. We've learned something. Various control points will be used to avoid huge inventory gluts."

A few P.A.'s, however, aren't altogether happy about this new trend toward tighter stocking. Firmly opposed is Wurster, director of purchasing at Wyandotte Chemicals Corp., who contends that the need for constant ordering—plus the ever-present threat of being caught short in a sudden business upsurge—makes a tight policy more costly in the long-run.

But this is a minority opinion; the overwhelming majority view is that the new trend represents a real advance for the Purchasing profession.

Asserts the purchasing vice president of one of the nation's leading industrial firms: "It means purchasing has a new function now—that of profit making. We can't afford to overload ourselves with—or guess wrong on—inventories."

Government Antitrusters Widen Probe To Include Copper and Brass Prices

(Continued from page 1)
lot closer at suppliers' costs," said the P.A. of a steel fabricating firm, "and this is part of the information we were going to expect from a supplier."

He emphasized that this cost data must be viewed in light of changing material and labor costs.

"Sure, buyers will be skeptical about prices for a while," another P.A. said. "The only way to remove doubts is to find out what goes into the price."

This could require wholesale revision of buying practices, many P.A.'s concede.

One P.A. pointed out that it isn't going to be easy to determine costs where "off-the-shelf" items are concerned, "and there's every indication," he said, "that there is a lot more information about the prices of such items that we'll have to account for."

Meanwhile, Pres. Kennedy announced a frontal assault on bidding practices with the disclosure that he will issue an executive order requiring heads of all federal agencies to report to the Justice Dept. all identical bids.

Federal agency heads now are required to report only bids which they believe were reached through collusion. The new order is aimed at enabling the Justice Dept. to study bid patterns and to make public the names of the companies submitting them.

The theory is that publicity about identical bids will tend to make companies avoid them by revising bidding practices. That's the view of proponents of the plan, Sen. Paul Douglas (D-Ill.) and Rep. Wright Patman (D-Tex.).

Antitrust activity mounted in these areas:

• **Copper and brass.** A grand

jury probe will open in Hartford, Conn., April 17. John J. Galgay, who will present the Justice Dept.'s case, said the investigation would cover the "entire antitrust field, which includes price fixing."

• **Aluminum cable.** A Philadelphia grand jury is looking into alleged price fixing in reinforced aluminum cable, based on identical bids reported by TVA.

• **Building materials.** A grand jury in Washington, D. C., will soon begin investigating building material prices.

• **Automotive.** A grand jury in New York is looking for possible violations of antitrust laws in the organization of General Motors Corp.

• **Drugs.** Drug price fixing, along with meat, milk and similar food products, are due for stepped-up investigation.

Supplier Censures Utility Buyers

(Continued from page 1)

provide "better understanding of the charges that should be made for field service, startup service, and for bidding or quoting projects."

Crawford scored two buying practices which he felt were harming the utility industry:

• **Turnkey contracts**, in which the equipment manufacturer acts as consultant-constructor. He said these had a deleterious effect on long-established and mutually beneficial direct relationships between smaller suppliers and operators.

• **Cyclical buying**, which puts material costs at the mercy of price swings and creates buying pressure resulting in uncertain

deliveries and increased rejection rates.

Crawford said one remedy, "anticipatory buying," was being tried in isolated cases. He cited TVA's recent bid invitation for two 800,000-watt turbo-generators, which he said gave "real freedom to manufacturers in fabricating schedules." GE, which won the contract, proposed delivery one year ahead of schedule.

Commenting on electrical equipment price fixing convictions, Crawford charged that the power industry is caught in the "confusion of legalized price fixing by many government agencies" on one hand and the "widely publicized" antitrust actions on the other.

This Week's

Purchasing Perspective

MARCH 27-
APRIL 2

FIRST REACTION to the Air Force decision to centralize its procurement functions for R&D and production appears so far to be one of general approval. Most prime contractors, however, are waiting to see how the new Air Force Systems Command implements its multibillion dollar contracting responsibilities.

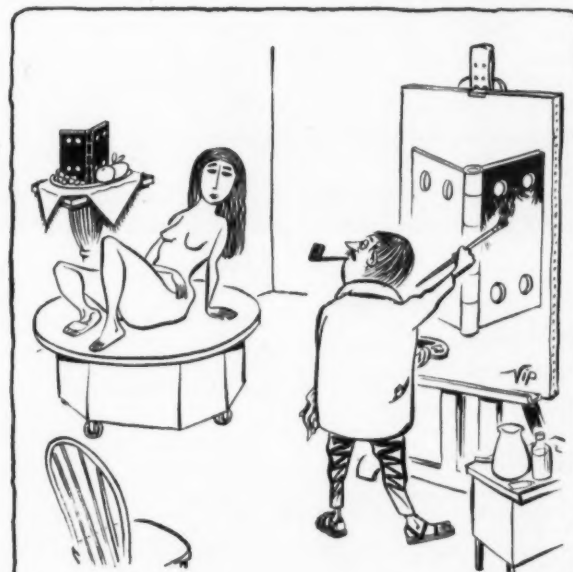
One easily detectable response has been the feeling that because former Air Research and Development Command officers will have a major voice in the new setup, the new procurement organization will have greater technical capability than Air Materiel Command and thus appreciate more fully the technical problems involved in turning out advanced weapons systems.

Major contractors now will have to sell only one (AF) command, instead of two, on approaches to technical headaches. Previously, they had to sell ARDC first on technical aspects, then Gen. S. E. Anderson's cost-conscious AMC on production phase contracts.

Smaller defense-type firms are most wary of the reorganization effects. Small firms with good engineering and scientific capability apparently stand the best chance of improving their status as defense contractors because with their closeness to R&D work, they will have a more sympathetic audience in former ARDC circles. Job shop types of operations stand a chance of coming off second best, they say, now that the cost-oriented AMC has been relegated to only spare part and common-use item procurement responsibilities.

JUST HOW SERIOUSLY the electronics industry is taking the inroads made by imports is illustrated by the "Buy-American" campaign being considered by a Boston-based company. Seeking to protect its highly prized "Made in U.S.A." label, the firm is contacting suppliers on a proposal to insert a special "Buy-American" clause in all its purchase orders. The clause would require each vendor to certify that all components sold to the company are U.S.-made. Any violation would invoke a stiff monetary penalty.

BUYER'S GUIDE—Steel industry sources said last week that their slowly rising order rate, while encouraging after a might drab winter, still is nothing more than seasonal. Some industry forecasters still see no sharp upturn until after Labor Day . . . much depends on Detroit's buying mood, and the auto companies have been reluctant to make any major forward commitments. Auto parts producers report that they've experienced a change in the climate for car sales and although not exactly bowled over by new orders for parts, these suppliers are looking for better action in April. Beyond that, however, any optimism is based more on hope than fact.



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P.A. Seminar Takes Up Cost, Import Problems

(Continued from page 1)
sis, traffic, vendor relations, and performance.

Ralph C. Moffitt, vice president-purchases, U.S. Steel Corp., set cost reduction squarely in the P.A.'s lap. "You make the management team only by producing," Moffitt said. Planned purchasing research, cost reduction, and value analysis were the best ways to judge purchasing performance. "Even a one-man department can set up a check list for reviewing each item he buys," Moffitt said. "You can make savings from any commodity. The potential is there for even the smallest department."

Value analysis continues to be the No. 1 tool for purchasing cost reduction, said Roy E. Fountain, president of Value Programs for Industry, value analysis consultants. "V.A. is one of the keys to overcoming foreign competition," he said. "The Swiss, French, Germans, and Japanese offer better value in their products." Lower foreign labor costs also are a factor, he said, "but the Europeans and Japanese are subconscious value analysts."

Concerted value programs reap big savings, Fountain said. He told of one Canadian electronics firm that was "value analyzing Japanese products, making them better, and export-

ing them to Japan." In another instance, he said, an Ohio radio manufacturer put a six-man task force onto value analysis and saved an amount equal to 59% of the radios' selling price. Still another manufacturer saved 40% in eight weeks on another product subject to foreign competition.



BETWEEN THE ACTS AT THE SEMINAR (l-r): Vice Presidents J. S. Carlson of ACF's Shippers' Car Line Div., and H. K. Intemann, Union Carbide, talk to E. S. Page, Olin Mathieson; W. J. Heubach, Union Bag-Camp, professional development chairman, T. F. Griffin, Worthington Corp.

Herman K. Intemann, director of purchases at Union Carbide, urged closer supplier relations to ease the cost price squeeze. Intemann remarked that most salesman-P.A. interviews were conducted on a haphazard basis, but that a planned vendor relations program would pay off immediately by tapping knowledge from the suppliers' labs. "You pay for it, so ask for it," Intemann advised.

Longer range savings come from intimate understanding of each other's processes, products, and problems, Intemann said. "For instance," he said, "you can cooperate with suppliers' traffic departments on packaging, traffic, insurance, and taxes."

Also advocating close coordination of the traffic function was John S. Carlson, vice president sales of Shippers Car Line Div., ACF Industries. Money is lost Carlson said, because purchasing and traffic don't cooperate to get the best traffic buys. "They fight to get the price down, only to see the money go out the window in inefficient freight and materials handling," he said.

James C. Traister, of American Smelting and Refining Co., outlined the contributions P.A.'s

could make in capital equipment buying. The key here is engineering know-how in the purchasing department, he said.

Philip B. Hoyt, vice president purchases of American Car and Foundry Div. of ACF Industries, discussed centralized and decentralized purchasing. Centralization makes the most sense, he

said, but the important thing is to avoid living under an obsolete organization. "It may be time to reorganize to meet new conditions," he said. "Compare results to goals to see if the organization needs revision."

Davis S. Gibson, vice president purchases at Worthington Corp., tied up purchasing problems into his new performance evaluation system (see PW, Aug. 8 '60, p. 1). Heart of the system is the budget for purchased materials, department personnel, and operating costs. Each division purchasing manager is rated according to the variance from his budget, taking into account the factors that were within and beyond his control. Variances serve as "red flags" to call P.A.'s—and management's—attention to potential trouble spots.

"Set a budget and live within it," Gibson recommended. "Nothing makes management lose confidence in a man faster than making a figure and not keeping it on operating expense. You can't make the head team if you don't plan, and know what jobs you are going to do, what programs you are going to run."

Late News in Brief

U. S. Rubber May Rescind Price Hike

New York—U. S. Rubber may pull back its recent increase in tire prices if no other companies go along with the boost by April 1, date it is set to go into effect. Company President George R. Villa made this disclosure at a security analysts' meeting here. U. S. Rubber had said it would boost prices of first-line passenger tires 5% and highway truck tires 2½%.

Ironton Works to Resume Operations

Salk Lake City—U. S. Steel will resume partial operations at its Ironton Works near Provo, Utah, which supplies the nearby Columbia-Geneva plant. Open hearth operations at the Geneva works will be increased from eight to nine furnaces owing to "steady improvement in steel orders."

U. S. Okays Surplus Corn Deal

Washington—The Agriculture Dept. will recommend that distillers be allowed to buy surplus corn at cut-rate prices to encourage them to experiment with it in the manufacture of industrial alcohol. The move would enable Publicker Industries, Inc., of Philadelphia to buy 30-million bu. at one-third the former support level of \$1.06/bu. and thereby cancel a verbal agreement to buy 120-million gal. of molasses from Cuba. Both transactions would amount to \$12-million.

Price of Steel Scrap Up

New York—Steel scrap prices rose \$2 to \$4 on principal open hearth grades, following similar advances in other markets during the week. Major spark: Japanese purchase of 900,000 tons for second quarter delivery at prices reportedly higher than for first quarter purchases.

Scrap Copper Up ½¢/lb.

New York—Custom smelter buying price for scrap copper rebounded from its recent slide, increasing ½¢/lb. This advanced the price to 24¢/lb., equal to about 29½¢ for refined copper made from the material for delivery in three months.

Furfuryl Prices Slashed In Move to Widen Market

New York—Quaker Oats announced price cuts for tetrahydrofurfuryl (THFA) and furfuryl (FA) alcohols, effective April 1, as part of a drive to widen its markets for these chemicals.

The new prices will be 6¢/lb. lower for THFA—25¢/lb. for tankcar lots delivered east of Denver and 26¢/lb. west of Denver. FA tags will be cut 1¢/lb. to 18¢/lb. f.o.b. Memphis and 19½¢/lb. f.o.b. Newark for carlot quantities, and 19¢/lb. f.o.b. Memphis and 20½¢/lb. f.o.b. Newark for LCL's or drums. FA tankcar prices will stay at 17½¢/lb., but on a delivered basis instead of the former f.o.b. works an estimated 1¢ to 1½¢/lb. saving to consumers.

Price Changes for Purchasing Agents

Item & Company	Amount of Change	New Price	Reason
INCREASES			
Liquid-type instrument transformers, GE.....	1%	....	incr. costs
Vinyl chloride monomer, Dow, Apr. 1-June 30, lb.....	.000005	.000896	escalation factors
Antimony, imptd., lb.....	.01	....	tight supply
REDUCTIONS			
Corrugated material, Int'l Paper, 1000 sq. ft.....	.05	\$1.38	competition
Gum rosins, N. Y., Katy, Mary, cwt.....	.25	\$15.50	slow demand
Nancy, cwt.....	.25	\$15.75	slow demand
Window glass, cwt.....	.50	\$16.50	slow demand
Water white, cwt.....	.50	\$17.00	slow demand
Dimethylacetamide, Du Pont, bulk, lb.....	.225	.50	prod. econs.
Dry-type instrument transformers, GE.....	1%	....	prod. econs.
Diodes, silicon tunnel & uni-tunnel, Hoffman.....	10%-40%	....	prod. econs.
Home heating oil, diesel, kerosene, Gulf Coast, gal.....	.0025-.00375	....	mild weather
Gasoline, Gulf Coast, cargo, gal.....	.005	....	heavy inventories
Tin plate, U. S. Stl (Fairfield, Ala. & Fairless, Pa.), base box.....	.10	....	....
#2 Heating oil, Mid-cont. refiners, gal.....	.0025-.005	.09-.0925	mild weather
Furfuryl alcohol, Quaker Oats, April 1, crlts., lb.....	.01	....	widen markets
Glycerin, crude, soap lye, basis 80%, lb.....	.005	.145	competition
Saponification, basis 88% lb.....	.005	.16	competition

Show Features New Uses for Metals

Los Angeles—The 12th Western Metals Exposition last week attracted hundreds of purchasing agents who roamed the over 300 exhibit booths and sat in on scores of technical sessions. Main objective: new adaptations of metals to the stringent demands of the space age.

The Purchasing Agents Assns. of Los Angeles, Northern California, and Oregon cooperated with the American Society for Metals in staging the show.

Many of the 125 technical papers presented related to the newest developments in handling and processing metals for missile, electronic, and aircraft applications.

Some of the latest advances demonstrated at the show:

• Samples of specially treated tantalum which had been subjected to hundreds of hours of extreme reducing environments with apparent negligible effects of hydrogen embrittlement. Union Carbide Metals Co. scientists found that the attachment of a small amount of platinum metal to the tantalum can prevent embrittlement over a long period of time.

• New cobalt-containing materials for use in aerospace and electronics were exhibited by Battelle Memorial Institute. Cobalt materials are being used in soft and permanent magnets in certain electronic devices and in thin film for memory devices and computers. Cobalt also is being used in superalloys to impart high strength and low creep at high temperatures. Wear resistant and hardness properties also make cobalt applicable to tool and cutting materials.

• Southwest Engineering Co. introduced a new line of vi-

bro-energy finishing mills. The technique of three-dimensional, high-frequency, low-amplitude vibration is now being applied to the deburring and finishing of metal, plastic, and ceramic parts.

• A new coating process which diffuses elements into the surface of metals, providing exceptional resistance to oxidation was outlined by Chromizing Corp. Called "Chromallizing," the new process is being used specifically in a smog burner device, but shows promise of application in aerospace and nuclear technology. The process has been used in the coating of molybdenum, ferrous, nickel, and cobalt base alloys.

• Explosive forming techniques were explained by Rocketdyne. This division of North American Aviation, Inc., has made recent strides in applying explosive forming to production of titanium, zirconium, stainless 15-7 Mo, aluminum tool steels, and Rene 41.

Air Cargo Rates Reduced

New York—American Airlines and Trans World Airlines plan to reduce rates by 20% effective April 2, on west-to-east shipments of a broad range of commodities. Both airlines have asked CAB permission to reclassify all Group 16 items to Group 37, on which lower east-tariffs can be obtained.

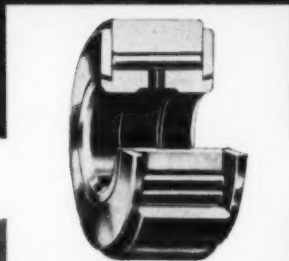
Flying Tiger, which now has reductions in effect on some of these items, filed for permission to cut rates on all items to match the new TWA and American rates. United, which had filed for rate reductions on certain commodities to become effective April 8, has also refiled to cover the complete list.

Purchasing Agents

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Extra heavy outer race or heavy rolling loads. Also available in double row type.

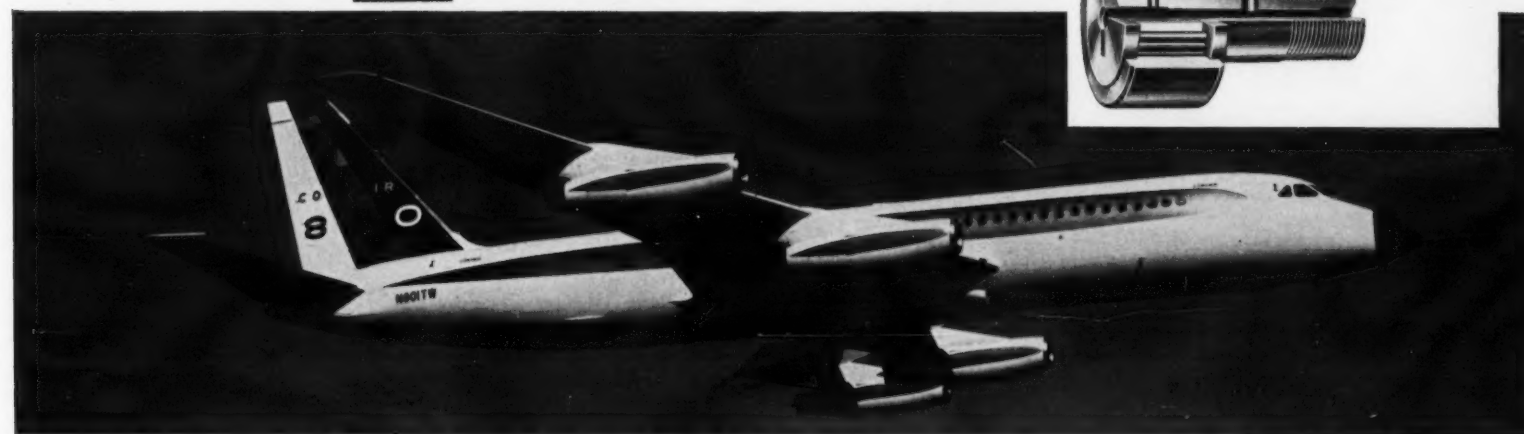
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